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Overview

This manual is designed to help school districts or individual schools systematically enhance the academic vocabulary of their students to better prepare them to learn new content in mathematics, science, language arts, and social studies. This document has been aligned with the revised standards as applicable. The research and theory underlying the recommendations made here have been detailed in the book *Building Background Knowledge for Academic Achievement* (Marzano, 2004). Briefly, the logic of such an endeavor is that the more general background knowledge a student has about the academic content that will be addressed in a given class or course, the easier it is for the student to understand and learn the new content addressed in that class or course. Unfortunately because of a variety of factors, including differences in the extent to which experiences at home help enhance academic background knowledge, students transferring from one school to another or one district to another, and so on, there is typically great disparity in the academic background knowledge of students, and this disparity increases as students progress through the school years. However, if a district (or school) were to systematically ensure that all students were exposed to specific academic terms and phrases across the grade levels, this would form a strong common foundation for all students. To this end, this manual lists important academic terms and phrases in mathematics, science, language arts, and social studies. Table 1 provides an overview of the number of terms and phrases in each subject area:
Table 1 – Terms and Phrases by Grade/Course within Subject Area

<table>
<thead>
<tr>
<th></th>
<th>Language Arts</th>
<th>Mathematics</th>
<th>Science</th>
<th>Social Studies</th>
</tr>
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<tbody>
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<td>Grade 8</td>
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<td>Grade 9</td>
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<tr>
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<td>Geometry</td>
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<tr>
<td>Earth Science</td>
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<tr>
<td>Physical Science</td>
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<td>Economics</td>
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<tr>
<td>Geography</td>
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<tr>
<td>Government</td>
<td></td>
<td></td>
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<td>U. S. History</td>
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<td>40</td>
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<tr>
<td>World History</td>
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<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Personal Finance</td>
<td></td>
<td></td>
<td></td>
<td>26</td>
</tr>
</tbody>
</table>

Table 1 illustrates terms and phrases identified for each subject area for grades K – 8. In addition approximately 30 terms have also been identified for the following general courses:

**Language Arts:**
- Grade 9
- Grade 10

**Mathematics:**
- Algebra I
- Algebra II
- Geometry

**Science:**
- Biology
- Earth Science
- Physical Science

**Social Studies:**
- Economics
- Geography
- U.S. History
- World History
- Personal Finance
How the Terms and Phrases Were Identified

It is important to note that the terms and phrases listed in this document are meant as “examples.” They are not to be considered implicitly or explicitly a list of “mandated” terms and phrases. Rather districts (or schools) might decide to add terms and phrases, delete terms and phrases, further define terms and phrases, or create their own lists which are completely different from those offered here.

The lists provided here were generated by groups of expert subject matter and grade level specialists from Tennessee schools whose charge was to identify those terms and phrases that are especially important to student understanding of the mathematics, science, language arts, and social studies curriculum standards. Approximately 30 terms were identified in each subject area so as not to overburden an individual classroom teacher. For example, a third grade teacher in a self-contained classroom whose job it is to teach all four of these subject areas would be responsible for about 131 terms and phrases. During a 36 week school year this would amount to about 22 terms and phrases per month allowing adequate time for the teacher to address many other terms of her own choosing. For example, the teacher could attend to the 131 pre-identified terms and phrases and still teach important words found in a story or important words found in a chapter of a textbook. In fact, research indicates that about 400 terms and phrases per year are typically addressed in programs that emphasize vocabulary instruction (see Marzano, 2004, p. 63). Identifying 131 terms and phrases leaves about 269 terms and phrases that are specific to an individual teacher.

To demonstrate the potential power of teachers within a district addressing common terms and phrases, consider the subject of mathematics. In mathematics 288 terms and phrases are listed for grades K – 8. If every teacher in a district were to teach these terms and phrases, students in that district would enter ninth grade with common, in depth experiences in these 288 key mathematics terms and phrases. Certainly this would provide a strong base on which ninth grade mathematics teachers could build.

How to Teach the Terms and Phrases

There is no single best way to teach terms and phrases. However, the research and theory on vocabulary development does point to a few generalizations that provide strong guidance. The Tennessee Department of Education Division of Teaching and Learning recommends the following six steps in teaching each of the TNAV terms or concepts.
Develop an academic vocabulary journal and use it at each step of interaction with vocabulary to deepen understanding and gain meaning. The steps outlined correspond with the six steps that exemplify best practice in vocabulary instruction.

Step 1: Introduce Vocabulary
Provide students with a description, explanation, or example as opposed to a formal definition.

1. Access Prior Knowledge: Think, Pair, Share, Double-pair, Class Share
   • 20 seconds: Individually, think “What does ___ mean?”
   • 30 seconds: With one partner, share what you think the term means.
   • 40 seconds: With another pair write (or draw) what you decide together that the term means.
Class discussion assimilates information from all groups of four.

2. Build on Prior Knowledge: I Know/Forgot/Understand/Need More Help
   • Ask students to fold a sheet of paper in fourths.
   • Tell them to fill in part 1 individually for the new term that you name.
   • Tell them to fill in parts 2, 3, 4 as other students share what they wrote in part 1.
   • After the class has shared, students will have an organized study sheet. They will have to pay the most attention to section 4, and the least attention to section 1.

3. Examples and Non-examples
As students are learning new terms, provide them with both examples and non-examples and ask them to note similarities and differences to help with identifying the distinguishing feature.

Make a T-Chart so that the word at the top of the chart is the “term” under discussion. On the left students write the meaning of the word as used in common language (in context outside of this discipline) and write a sentence with it that they might use in a daily conversation. On the right side students write the meaning of the word as used in specific discipline with a sentence. Students follow up with a deeper comparison by finding a similarity and a difference for these usages.

<table>
<thead>
<tr>
<th>term/word/phrase:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions</td>
</tr>
<tr>
<td>Common Language Usage</td>
</tr>
<tr>
<td>Sentences using the term/word/phrase</td>
</tr>
<tr>
<td>Common Language Usage</td>
</tr>
<tr>
<td>Same?</td>
</tr>
<tr>
<td>Different?</td>
</tr>
</tbody>
</table>
5. Verbal/Visual Context
Use the word/term/phrase in a sentence related to something students have already studied.

Step 2: Restate Meanings
Have students generate their own descriptions, explanations, or examples.

7. Rephrase Text
Pay attention to terminology used in directions/instructions as well as in text explanations. Ask students to find alternative ways to express a term/phrase so that they will be better able to recognize their meanings when the directions/instructions are different than what is in their own textbook. As often as possible, students produce different ways to express a statement. Ask students to rewrite the sentence or the directions without using an identified term(s) and without changing the meaning of the sentence or problem.

8. Concept Cards
Make concept cards for mathematical terms on 3 x 5 index cards or in a vocabulary journal as follows.

<table>
<thead>
<tr>
<th>formal definition</th>
<th>synonym or your own words</th>
</tr>
</thead>
<tbody>
<tr>
<td>term being addressed</td>
<td></td>
</tr>
<tr>
<td><strong>labeled</strong> figure, graph, or diagram that helps you to understand the term</td>
<td>any specific notation or special characteristics, attributes, or associations</td>
</tr>
</tbody>
</table>

***On the back of the card, write at least two sentences that express a relationship or connection between this term and another term in the discipline, concept, situation, or a real-world application of the discipline.

9. Words to Symbols/ Symbols to Words
Write a statement using symbols, numerals, and variables instead of words. Write a statement using words instead of symbols, numerals, and variables. Write a question implied by the notation/symbols used in each statement without using any symbols.

10. Word Whacker – Word Wall Activity for Definition Restating
Students select a word from the word wall (from a current word list or from the cumulative word list), write a definition on a 3 x 5 card in their own words, and pass the cards in to the teacher. Ask students to sign their names to the card. Two students stand at the word wall with a flyswatter or a rolled up newspaper. As the definitions are read by the teacher (the name of the contributor is not mentioned), the students try to be the one to ‘whack’ the correct word first. If there are issues with the definition as stated on the 3 x 5 card, corrections can be offered by the class members or the teacher so that the student can refine his understanding of the word. (Students cannot choose to define the same word as a card that they have already submitted for a previous word whacker session. Cards can be accumulated during the marking period and compose a vocabulary score.)

Step 3: Visuals in Vocabulary Building
Have students represent each term or phrase using a graphic representation, picture, or pictograph.
11. **Draw (or Trace) and Label Diagrams/Graphs**

Some students are not adept at drawing their own figures. Allow them to trace diagrams from the text and label them appropriately. Tissue paper works well for this and can be taped to notebook paper. The same idea can be used with graphs from a graphing calculator or a computer drawing tool.

12. **Symbols**

Be sure that students can identify the meaning of all symbols (math, science, map, proofreading, abbreviations, icons) and can use the symbol appropriately in writing in the content. Students should be able to identify concepts noted by both symbols and figures.

13. **Physical Movement and Academic Vocabulary**

This activity helps students to association groups of words but also to distinguish between the words in the group. Do “word aerobics” by acting out the words in the lessons. Tap into the students’ creativity. Who has the best way to model this physically? Or play Simon Says: Simon says show_____. As a game: In one minute, use signals, arm positions, or motions to prompt your partner to say all the terms/words/phrases in one group in any order but without talking, drawing, writing, or spelling with sign language.

14. **Illustrations for Vocabulary that Convey Meanings**

Connect the meaning of the term to the term through an illustration.

15. **Cartoons or Comic Strips**

Students draw figures, graphs, etc. and as speaking cartoon characters and provide their thoughts or comments so that words and their meanings are associated.

16. **Matching – Concentration**

Teachers (or students) create matching cards that illustrate vocabulary. After cards are matched, students can play the memory game “Concentration” and keep the pairs which they correctly match when they turn over two cards on their turn.

**Step 4: Activities for Deeper Understanding**

Periodically review the terms and phrases and provide students with activities that add to their knowledge base.

17. **Word Recall**

Recall issues with the word and write in the journal or on the concept card any misconceptions or words with which the term can be confused.

18. **The Goal: Good Definitions**

Establish rules for a good definition:

1. places the term being defined into a set,
2. describes how that term is different from other elements in the set,
3. is reversible.

Analysis: Students will ask themselves these questions:

- What is the set to which this object/term belongs?
- What is different about this object/term from the other elements in this set?
- Can I switch the subject and predicate nominative and still have a true sentence?
19. Relationships between Terms – 3 x 3 Grids
Write one term in each box of a 3 x 3 grid. Students will write a sentence for each set of three terms in a line (tic, tac, toe) that describes a relationship, states a fact, or gives characteristics. Do not allow students to write individual sentences about each terms and connect them with the word ‘and.’ There are a total of 8 sentences that can be written. Require all 8 (or only 5 or only 3 and then students can choose.) Differentiate by leaving the center box blank. Then students have four ways to write a sentence with only two terms.

20. Relationship Building – Concept Circles
Divide a circle into fourths using two diameters.
TITLE __________________________
Place four related words in the circle.
Ask students to decide the title for the set of words.
Ask questions based on the circle:
1. Why is each of these words related to your title?
2. Is another title appropriate for the set of words?
Explain.
3. Could other words have been placed in one of the four sections of the circle?
4. Replace one word with a different word and determine a title for the concept circle?
Alternate version:
TITLE  Given Title
Divide a circle into fourths using two diameters. Tell students the title for the concept circle. Ask students to write 4 words in the circle that relate to this title. Have class members compare answers. Each student must justify their choice of words for their circle.
How many different words did students relate to this word?
Are there ways to group the class’ set of words into subsets?

21. Related Words - Making Connections within the Content
This strategy helps the student identify mastered concepts, on which new knowledge can be built. It assists them in forming associations and categorizing new knowledge. Ask student to write down all of the other terms or words they know that can be associated with a particular term/word/phrase. Students explain why they listed as they did. They should discuss other words someone else included.

22. Pairs or Groups of Terms
Synonyms (or Almost Synonyms): If there is more than one term that means the same as the target term, use that synonym interchangeably with the new word. Some students may already have an understanding of the synonymous terminology. If there is not a synonym, there might still be a term that is similar enough to help students gain an initial understanding and will help students to make a connection to existing knowledge. Delineating any differences between the similar term and the new term adds to the students’ depth of understanding.

Antonyms (or Almost Opposites): If there is a word(s) that students are already familiar with that groups with the new word in some way point out the connection being explicit about the differences. Mentioning meanings of word parts (prefixes) helps with this process.
Belong Together – Why? Be careful about words that require sets of words to capture all of the characteristics that that word does not capture. Sometimes three terms are required to capture all cases for a situation.

23. Linear Array for Ordering Words
This strategy enables students to not only group related words together but to place them in an implied order by virtue of their meanings. The teacher gives the first and last words in the array and students fill in any intervening cells.

![Diagram of Linear Array]

This strategy lends itself to differentiation well. The teacher may indicate how many cells intervene or leave that to the student. The teacher may fill in some of the intervening cells when students are learning new terms and not fill in any after students have mastered concepts. Students can design their own arrays using many words which they group themselves. Students can use 3 x 5 cards with the terms already written down and place them in sequential order; they could have a word bank, or they could be given the intervening words and the students fill in words for the beginning and the ending.

Specify the number of intervening cells.

Allow student to determine the number of intervening cells.

Establish some of the intervening skills to scaffold.
24. Use Analogies to Solidify Understanding of Relationships
Have students complete, extend, or write their own analogies using terms from the unit. Making a sentence that shows the relationship between the first two words/terms shown gives you some direction.

- Complete or extend an analogy given two terms.
- Give three terms of an analogy and ask students to fill in the remaining term.
- Make more than one pair of words in an extension of an analogy.

25. Compare/Contrast Terms – Three Formats

**Venn Diagram**

First word and how it differs from second word

**Similarities**

Second word and how it differs from first word

**Graphic Organizer**

Term 1

- Different Characteristic A
- Different Characteristic B
- Different Characteristic C

Term 2

- Different Characteristic A
- Different Characteristic B
- Different Characteristic C
Step 5: Vocabulary Discussions
Periodically ask students to discuss the terms with one another.

26. Think – Pair – Share
Describe any ‘aha moments’ you have had concerning vocabulary. Discuss where you have seen the word in use. Explain how you recall the word and/or share your individual visualization.

27. Word Wall Activities
Build a word wall by writing terms on an index card and putting them on a wall in the classroom. Periodically have discussions/questions about words on the wall.
- I am thinking of a word… (teacher gives clues until students select the proper word)
- What word means the opposite of ____?
- What word means the same as ____?
- What word(s) goes with ____?
- What words describe types of ____?
- What words describe this picture/diagram? (teacher displays a picture, graph, diagram, etc.)
- What words match with the symbol ____? (teacher displays symbol)
- What word is in a category with ____ and what is the name of the category?
- I will name two words in a category; you find another word on the word wall that belongs to that category and explain the association.
- My word is ____. Pick another word (or two other words) off the word wall and make a meaningful connection between the two words in a sentence.
- Word whacker –
  1. Pass out an index card to each student and tell them to select any word on the word wall and write a good definition for it and collect the definitions.
  2. Designate two students to stand in front of the word wall with a flyswatter (or a rolled up newspaper).
  3. Read out the index cards that the students wrote and ask the students to whack the word for the definition that you read.
  4. Talk about the construction of the definitions as they are read but do not identify the contributor if there are errors.

28. What Doesn’t Belong and Why?
From a list of three or four words/terms/phrases, pick out a word/term/phrase that does not fit with the group and tell the mathematics that explains why. Select words or terms that have more than one correct answer.

29. Word Sort
Begin with a set of words and ask students to arrange them into groups by whatever criteria they choose. They must tell why they grouped them that way, what they have in common, and why these terms are different from the words you have placed in a different group. Is there is a term in the group that could be a title for the group? If not, what is a good title for the group? Is there a term that doesn’t fit into any grouping? If so, ask students to create a group with the term that does not fit with any other term.

30. Two-Way Sort
Terms that relate to the same topic may be confusing. A two-way sort offers students the opportunity to distinguish between terms through application. Students can work in small groups to sort the examples of the terms as well as to group the examples that deal with the same situation.
Step 6: Word Play
As has been demonstrated already, the sixth step emphasizes the importance of games that use the terms and phrases from the academic vocabulary. After each activity students should be asked to make corrections, additions, and changes to the entries in their notebooks. Students’ knowledge of the terms and phrases should deepen and become a sound foundation on which to understand the academic content presented in class.

31. Taboo Words
This strategy forces students to think of several ways to word descriptions or definitions of terms and plays off a popular social game. Try to get your partner to say a particular term/word/phrase without using some of the other (taboo) words associated with it or forms of those words.

32. Step UP or Pyramid
This review game is based on the format of the TV game show “$100,000 Pyramid.” Students are in pairs, one facing the screen, one with his/her back to the screen. On the PowerPoint slide show, enter the words in the boxes on the steps. Put a 5 second delay on the timing between words or adjust timing to suit your class level. You can also copy the stairs below on an overhead projector transparency, write the target words on the stairs and cover them with post-it flags and reveal them in succession. The student facing the screen gives clues (or names examples) for the category on the bottom step and continues to do give new clues until his/her partner has guessed the term. The clue giver repeats his responsibilities for each successive term up the stair case until one team yells, “Finished!” Teams earn the number of points for the last step they had completed before someone finished. Winners add 50 points to their score. Or if you want to be able to assess the groups, put the groups in teams of three. There will be one person who is not playing who can record the clues that were given. This person can also offer suggestions after play is over for another clue that might have helped the guesser.

The teacher can construct the categories from the current unit, around a theme (starts with...), or can just select words from review. The whole game takes less than a minute and students have the opportunity to express word meanings in their own words. If the partner is not guessing the correct category, the pair should determine if the examples were deficient or if the guesser did not know the meaning of the category. The students also have the chance to help one another with any troublesome terminology.

The same type game can be done with a pyramid starting with the lower left corner and completing the bottom row before going to the middle row left to right and then finally the top space. Again a third team member can record the clues and help analyze the play.

33. Talk, Talk, Talk, Talk, Talk...
In this game students are in pairs (A & B), with student A facing the screen, and student B with his/her back to the screen. On the screen (PowerPoint, whiteboard, or overhead projector), a category is shown at the top of a page and the terms in the category will be shown in a list. The category will be shown first and student B can look at the screen to see the name of the category but must face away from the screen before the list is shown. Student A can describe any word on the screen and must continue talking until his/her partner has said every term on the screen in any order. No words on the list may be used while Student A is giving the clues. This game could be done on a whiteboard/chalkboard, with paper taped over the list or on an overhead transparency with the list covered until student B has seen the category and has turned away from the screen.
Final Comments

The terms and phrases listed in this document are offered to Tennessee districts and schools as a foundation from which to design and implement a comprehensive program to enhance the academic background knowledge of students. The list is based on the curriculum frameworks in the respective subject areas. These are the concepts which will most likely be included in the annual summative assessment required by the State of Tennessee (spring achievement tests and Gateway). Districts and schools are encouraged to use this resource in ways that best suit their needs and dispositions.
<table>
<thead>
<tr>
<th>Kindergarten</th>
<th>1st Grade</th>
<th>2nd Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alphabet</td>
<td>Blend</td>
<td>Adjective</td>
</tr>
<tr>
<td>Author</td>
<td>Capitalization</td>
<td>Adverb</td>
</tr>
<tr>
<td>Illustrator</td>
<td>Character</td>
<td>Pronoun</td>
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<tr>
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<td>Setting</td>
<td>Dictionary</td>
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<tr>
<td>Ending</td>
<td>Consonant</td>
<td>Encyclopedia</td>
</tr>
<tr>
<td>Consonant</td>
<td>Vowel sound</td>
<td>Fiction</td>
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<tr>
<td>Vowel</td>
<td>Fantasy</td>
<td>Nonfiction</td>
</tr>
<tr>
<td>Drawing</td>
<td>Illustrate</td>
<td>Folktale</td>
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<tr>
<td>Fairy tale</td>
<td>Sequence</td>
<td>Fables</td>
</tr>
<tr>
<td>Letter</td>
<td>Predict</td>
<td>Discussion</td>
</tr>
<tr>
<td>Letter sound relationship</td>
<td>Punctuation (e.g., comma, quotation, etc.)</td>
<td>Main idea</td>
</tr>
<tr>
<td>Picture book</td>
<td>Question</td>
<td>Message</td>
</tr>
<tr>
<td>Poem</td>
<td>Statement</td>
<td>Predicting</td>
</tr>
<tr>
<td>Story</td>
<td>Reality</td>
<td>Prewrite</td>
</tr>
<tr>
<td>Song</td>
<td>Syllable</td>
<td>Draft</td>
</tr>
<tr>
<td>Print</td>
<td>Vocabulary</td>
<td>Edit</td>
</tr>
<tr>
<td>Retell</td>
<td>Media (e.g., book, video, film, illustrations)</td>
<td>Publish</td>
</tr>
<tr>
<td>Rhyme</td>
<td>Summarize</td>
<td>Author’s purpose</td>
</tr>
<tr>
<td>Sentence</td>
<td>Information</td>
<td>Table of contents</td>
</tr>
<tr>
<td>Speech</td>
<td>Noun</td>
<td>Glossary</td>
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<tr>
<td>Title</td>
<td>Verb</td>
<td>Singular</td>
</tr>
<tr>
<td>Uppercase (capital)</td>
<td>Compound word</td>
<td>Plural</td>
</tr>
<tr>
<td>Lower case</td>
<td></td>
<td>Plot</td>
</tr>
<tr>
<td>Word</td>
<td></td>
<td>Punctuation (e.g., comma, semi-colon, etc.)</td>
</tr>
<tr>
<td>Period</td>
<td></td>
<td>Base (root) word</td>
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<tr>
<td>Question mark</td>
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<td>Prefixes</td>
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<tr>
<td>Exclamation mark</td>
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<td>Suffixes</td>
</tr>
<tr>
<td>Read</td>
<td></td>
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</tbody>
</table>
### 3rd Grade
- Abbreviation
- Adverb
- Antonyms
- Apostrophe
- Cause
- Effect
- Contraction
- Declarative
- Exclamatory
- Fact
- Interrogative
- Multiple-meaning words
- Opinion
- Organization
- Plural
- Possessive
- Punctuation (commas)
- Thesaurus
- Internet
- Atlas
- Encyclopedia
- Run-on sentence
- Sequential
- Singular
- Stanza
- Character
- Setting
- Summarize
- Supporting details
- Synonyms
- Verb

### 4th Grade
- Alliteration
- Analogy
- Audience (as listeners)
- Author’s purpose
- Caption
- Compare
- Contrast
- Double-negative
- Drawing conclusions
- Fable
- Genre
- Homonyms
- Index
- Making inferences
- (inferring)
- Metaphor
- Outline
- Possessive nouns
- Prediction
- Proofread
- Quotations/quotation marks
- Sentence fragment
- Simile
- Subject/verb agreement
- Time order/transitional words
- Topic sentence
- Verb tense

### 5th Grade
- Affixes
- Comparative
- Conjunctions
- Figurative language
- Hyperbole
- Idiom
- Implied
- Clause
- Interjections
- Introductory paragraph
- Main ideas
- Metaphor
- Narrative
- Onomatopoeia
- Oral presentation
- Personification
- Point of view
- Preposition
- Prompt
- Punctuation marks (colon, semi-colon)
- Reference source
- (interviews, almanacs, newspapers)
- Simile
- Citations
- Superlative
- Theme
- Visual image
<table>
<thead>
<tr>
<th>6th Grade</th>
<th>7th Grade</th>
<th>8th Grade</th>
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<tbody>
<tr>
<td>Employ</td>
<td>Interaction with texts</td>
<td>Allusion</td>
</tr>
<tr>
<td>Foreign phrases</td>
<td>Paraphrase</td>
<td>Antecedent</td>
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<td>Genre</td>
<td>Etymology</td>
<td>Bias</td>
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<td>Semantic change</td>
<td>Clincher sentence</td>
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<td>Imagery</td>
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<td>Coherent order</td>
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<td>Inference</td>
<td>Denotation</td>
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<td>Mnemonic devices</td>
<td>Stress</td>
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<td>Writing modes</td>
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<td>Multiple meanings</td>
<td>Juncture</td>
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<td>Onomatopoeia</td>
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<td>Rhythm</td>
<td>Repetition</td>
<td>Elaboration</td>
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<td>Point of view</td>
<td>Foreign phrases</td>
<td>Facilitator (role identification/groups)</td>
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<tr>
<td>Propaganda</td>
<td>Internal rhyme</td>
<td>Gerund</td>
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<td>Relevant</td>
<td>Irony</td>
<td>Inferring</td>
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<td>Mood</td>
<td>Jargon</td>
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<td>Sequential order</td>
<td>Foreshadowing</td>
<td>Inductive reasoning</td>
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<td>Sidebars</td>
<td>Flashback</td>
<td>Deductive reasoning</td>
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<td>Simile</td>
<td>Tone</td>
<td>Inflection</td>
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<td>Symbolism</td>
<td>Inferences</td>
<td>Enunciation</td>
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<td>Viewpoint</td>
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<td>Thesis statement</td>
<td>Epilogue</td>
<td>Pitch</td>
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<td>Stressed/unstressed syllables</td>
<td>Assonance</td>
<td>Participles</td>
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<td>Clauses</td>
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<td>Preface</td>
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<td>Double-negative</td>
<td>Sensory detail</td>
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<td>Shades of meaning</td>
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<td>Tension</td>
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<td></td>
<td>Thesis statement</td>
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<td>Mood/tone</td>
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<td>Acronyms</td>
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<td>Sidebars</td>
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<tr>
<td></td>
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<td>Footnotes</td>
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<td>Endnotes</td>
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</table>
9th Grade

Audience
Protagonist
Antagonist
Citation
Coherence
Diction
Drama
Elements of plot
Elements of poetry
Point of view
Etymology
Figurative language
Foreign words and phrases
Logical fallacies (e.g.,
  appeal to fear [ad
  baculum], personal
  attach [ad hominen],
  false dilemma, and
  false analogy)

Discourse
Paraphrase
Persuasive devices
Questioning
Research
Revision
Rubric
Source (e.g., primary,
  secondary, tertiary)

Style
Themes, recurring
Thesis (e.g., implied
  thesis)

10th Grade

Acronym
Ambiguity
Personal
Archetype
Connotation
Denotation
Elements of argument
Elements of design
Elements of plot
Elements of prose
Foreign words and phrases
Incongruity
Juxtaposition
Logical fallacy
Modes of discourse
Parallelism
Persuasive devices
Research
Reasoning
Rhetorical devices
Style
Shift
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<th>Kindergarten</th>
<th>1st Grade</th>
<th>2nd Grade</th>
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<td>Addition</td>
<td>Data</td>
<td>Associative property</td>
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<tr>
<td>Afternoon</td>
<td>Digit</td>
<td>Base-ten system</td>
</tr>
<tr>
<td>Calendar</td>
<td>Direction</td>
<td>Commutative property</td>
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<tr>
<td>Cardinal number</td>
<td>Equal to</td>
<td>Dimensions</td>
</tr>
<tr>
<td>Classify</td>
<td>Estimate</td>
<td>Distance</td>
</tr>
<tr>
<td>Compare</td>
<td>Even</td>
<td>Dollar</td>
</tr>
<tr>
<td>Date</td>
<td>Graph</td>
<td>Elapsed time/time interval</td>
</tr>
<tr>
<td>Difference</td>
<td>Greater than/less than</td>
<td>Equivalent</td>
</tr>
<tr>
<td>Dime</td>
<td>Half-hour</td>
<td>Event</td>
</tr>
<tr>
<td>Hour</td>
<td>Horizontal</td>
<td>Expanded form</td>
</tr>
<tr>
<td>Location</td>
<td>Length</td>
<td>Extend</td>
</tr>
<tr>
<td>Minus</td>
<td>Measure/measurement</td>
<td>Foot</td>
</tr>
<tr>
<td>Morning</td>
<td>Minute</td>
<td>Fraction</td>
</tr>
<tr>
<td>Nickel</td>
<td>Month</td>
<td>Inch</td>
</tr>
<tr>
<td>Number</td>
<td>Number sentence</td>
<td>Interpret</td>
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<tr>
<td>Order</td>
<td>Numeral</td>
<td>Kilogram</td>
</tr>
<tr>
<td>Ordinal number</td>
<td>Odd</td>
<td>Likely/unlikely</td>
</tr>
<tr>
<td>Pattern</td>
<td>One-half</td>
<td>Meter/centimeter</td>
</tr>
<tr>
<td>Penny</td>
<td>Part</td>
<td>Multiplication</td>
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<tr>
<td>Position</td>
<td>Place value</td>
<td>One-fourth</td>
</tr>
<tr>
<td>Quarter</td>
<td>Plus</td>
<td>One-third</td>
</tr>
<tr>
<td>Shapes</td>
<td>Ruler</td>
<td>Outcome</td>
</tr>
<tr>
<td>Sort</td>
<td>Skip count</td>
<td>Perimeter</td>
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<tr>
<td>Subtraction</td>
<td>Solve</td>
<td>Pound</td>
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<tr>
<td>Sum</td>
<td>Symbol</td>
<td>Quarter-hour</td>
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<tr>
<td>Time</td>
<td>Total</td>
<td>Reflect</td>
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<tr>
<td>Today</td>
<td>Unit (standard, non-standard)</td>
<td>Rotate</td>
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<tr>
<td>Tomorrow</td>
<td>Vertical</td>
<td>Second (time)</td>
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<tr>
<td>Value</td>
<td>Week</td>
<td>Set</td>
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<td>Yesterday</td>
<td>Weight, scales</td>
<td>Symmetry</td>
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<tr>
<td>Zero</td>
<td>Whole</td>
<td>Table</td>
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<td>Transformations</td>
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<td>Year</td>
<td>Transitive</td>
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<td>Translate</td>
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<td>Unknown</td>
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<td>Yard</td>
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<td>3rd Grade</td>
<td>4th Grade</td>
<td>5th Grade</td>
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<tr>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Angle</td>
<td>Accuracy</td>
<td>Algorithm</td>
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<td>Area</td>
<td>Acute</td>
<td>Categorical data</td>
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<tr>
<td>Array</td>
<td>Chance</td>
<td>Convex polygon</td>
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<td>Capacity</td>
<td>Common fraction</td>
<td>Data collection methods</td>
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<tr>
<td>Change (money)</td>
<td>Composite</td>
<td>Divisibility</td>
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<tr>
<td>Conclusion</td>
<td>Computation</td>
<td>Edge</td>
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<td>Congruent</td>
<td>Convert</td>
<td>Exponent</td>
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<td>Conjecture</td>
<td>Coordinate system</td>
<td>Exponential notation</td>
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<tr>
<td>Decimal</td>
<td>Distributive</td>
<td>Formula</td>
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<td>Denominator (like, unlike)</td>
<td>Division</td>
<td>Inequality</td>
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<td>Distributive</td>
<td>Dividend</td>
<td>Irregular</td>
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<td>Dividend</td>
<td>Division</td>
<td>Justify</td>
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<td>Division</td>
<td>Divisor</td>
<td>Line graph</td>
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<tr>
<td>Factor</td>
<td>Factor</td>
<td>Model</td>
</tr>
<tr>
<td>Frequency table, tally chart</td>
<td>Factor</td>
<td>Mixed number</td>
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<tr>
<td>Gram</td>
<td>Function table</td>
<td>Natural numbers</td>
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<tr>
<td>Intersecting lines</td>
<td>Improper fraction</td>
<td>Numerical data</td>
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<tr>
<td>Inverse relationships</td>
<td>Inverse operation</td>
<td>Order of operations</td>
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<tr>
<td>Kilometer</td>
<td>Measures of central</td>
<td>Outlier</td>
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<tr>
<td>Line plot</td>
<td>tendency (mean, median, mode)</td>
<td>Parallelagram</td>
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<td>Line of symmetry</td>
<td>Mixed number</td>
<td>Polyhedral solid</td>
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<td>Line, line segment</td>
<td>Obtuse</td>
<td>Prism</td>
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<td>Liquid measures</td>
<td>Ordered pairs</td>
<td>Rational numbers</td>
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<td>Mile</td>
<td>Pattern rules</td>
<td>Regular (Platonic) solid</td>
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<td>Multiples</td>
<td>Prime</td>
<td>Remainder</td>
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<td>Numerator</td>
<td>Probability</td>
<td>Round</td>
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<td>Ounce</td>
<td>Proper fraction</td>
<td>Significant digits</td>
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<td>Parallel</td>
<td>Quadrant</td>
<td>Solution</td>
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<td>Perpendicular</td>
<td>Radius (pl. radii)</td>
<td>Substitution property</td>
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<td>Pictograph</td>
<td>Range</td>
<td>Surface area</td>
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<td>Polygon</td>
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<td>Product</td>
<td>Remainder</td>
<td>Truncate</td>
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<td>Quotient</td>
<td>Right</td>
<td>Undefined</td>
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<td>Reasonableness</td>
<td>Scale of instrument/graph</td>
<td>Variable</td>
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<td>Unit fraction</td>
<td>Square unit</td>
<td>View</td>
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<td>Stem-and-leaf plot</td>
<td>Volume</td>
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<td>Tiling/tessellation</td>
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<td>Vertex (pl. vertices)</td>
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<tr>
<td>6th Grade</td>
<td>7th Grade</td>
<td>8th Grade</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
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<tr>
<td>Base (of exponent)</td>
<td>Absolute value</td>
<td>Adjacent angles</td>
</tr>
<tr>
<td>Cartesian coordinate system</td>
<td>Additive inverses</td>
<td>Alternate exterior angles</td>
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<tr>
<td>Circumference</td>
<td>Box &amp; whisker plot</td>
<td>Alternate interior angles</td>
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<td>Compound event</td>
<td>Coefficient</td>
<td>Complementary angles</td>
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<td>Degree (angles)</td>
<td>Cube root</td>
<td>Corresponding angles</td>
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<td>Dependent events</td>
<td>Function</td>
<td>D=rt (distance = rate x time)</td>
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<tr>
<td>Dilation</td>
<td>Function notation</td>
<td>Function families</td>
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<td>Equiangular</td>
<td>Greatest common divisor</td>
<td>Hypotenuse</td>
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<td>Equilateral</td>
<td>Greatest common factor</td>
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<td>Experimental probability</td>
<td>Histograms</td>
<td>Legs of a triangle</td>
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<tr>
<td>Inequality Theorem</td>
<td>Intercepts</td>
<td>Line of best fit</td>
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<td>Integers</td>
<td>Interquartile range</td>
<td>(conceptual)</td>
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<td>Interior/exterior angles</td>
<td>Least common multiple</td>
<td>Monomial</td>
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<td>Isosceles</td>
<td>Linear equation</td>
<td>Nonlinear equation</td>
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<td>Negative</td>
<td>Negative exponents</td>
<td>Perfect square</td>
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<td>Odds</td>
<td>Perfect square</td>
<td>Perfect square</td>
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<td>Percent</td>
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<td>Pythagorean Theorem</td>
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<td>Proportional relationships</td>
<td>Quadratic equations</td>
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<td>Poll</td>
<td>Quartile</td>
<td>Sequence</td>
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<td>Power</td>
<td>Scatter plots</td>
<td>Slope intercept form</td>
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<td>Prime factorization</td>
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<td>Supplementary angles</td>
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<td>Pyramid</td>
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<td>Unit rates</td>
<td>Vertical line test</td>
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<td>Sample bias</td>
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<td>Sample space</td>
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<td>Sample, sample data</td>
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<td>Scalene</td>
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<td>Similarity</td>
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<td>Simple event</td>
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<td>Simulation</td>
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<td>Theoretical probability</td>
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<tr>
<td>Triangle</td>
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</tbody>
</table>
Algebra I

Absolute value
Complement of an event
Compound
Conjunction
Direct and inverse variation
Disjunction
Domain & range
Exponential growth (and decay)
Interest (simple and compound)
Irrational numbers
Joint and conditional probability
Law of Large Numbers
Mathematical model
Measure of spread (range, interquartile range)
Midpoint formula
Outlier
Parent function
Pascal’s Triangle
Polynomial (binomial, trinomial)
Quadratic formula (including discriminant)
Quantitative and qualitative data
Radicand
Rational expression
Real number properties
Real roots (zeros, solutions, x-intercepts)
Relative frequency
Sequences (arithmetic, geometric, Fibonacci)
Simulations
Subsets of real numbers

Geometry

Altitude
Angle of depression
Angle of elevation
Apothem
Arc
Bisect (bisector)
Central angle
Centroid
Chord
Circumcenter
Circumscribed
Collinear
Concurrent lines
Conditional statement (including converse, inverse, contrapositive, biconditional statement)
Construction
Convex & concave polygons
Coplanar
Corollary
Deductive & inductive reasoning
Euclidean & non-Euclidean geometry
Geometric mean
Glide reflection
Incenter
Inscribed
Lateral area
Locus
Negation
Oblique
Orthocenter
Points of concurrency in a triangle
Postulate (axiom)
Proof (formal, two-column, paragraph, flow, coordinate, indirect, counterexample)
Scalar
Secant line
Sector of a circle
Skew lines
Tangent line
Theorem
Trigonometric ratios (sine, cosine, tangent)
Undefined terms of geometry
Vector (magnitude and direction)
Algebra II

Amplitude
Asymptote
Binomial Theorem
Combination
Common ratio (geometric sequence)
Complete the square
Complex conjugate
Complex number
Composition (of functions)
Conic sections (circles, parabola, ellipse, hyperbola)
Empirical Rule
Factorial
Focus (pl. foci)
Independent and dependent events
Inverse of a relation
Logarithm
Normal distribution
Period
Permutation
Piece-wise function
Radian measure
Rational function
Regression equation
Series (arithmetic, geometric, finite, infinite, etc.)
Sigma
Standard deviation
Step function
Synthetic division
Transcendental function
Trigonometric function
Trigonometric identity
Unit circle
Variance


SCIENCE

Kindergarten
air
animal
change
cloud
collect
color
day/night
food
growth
moon
natural
observe
ocean
parts
seasons
senses
shape
size
soil
solid/liquid
star
sun
temperature
thermometer
tools
water
weather

1st Grade
adult
balance
classify
environment
extinct
freezing
heat
insect
invent
investigate
life cycle
light
living/non-living
location
magnet
matter
mixed
planet
plant
precipitation
prediction
property
push/pull
shelter
texture
weather data

2nd Grade
Celsius/Fahrenheit
compare/contrast
depend
dissolve
distance
Earth resource
energy
evaporation
fossil
habitat
infer
investigate
observation
offspring
organism
parent
reasoning
renewable/non-renewable
scientific inquiry
scientist
similarities/differences
sound
temperature pattern
transform
type
universe
vibration
<table>
<thead>
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<th>3rd Grade</th>
<th>4th Grade</th>
<th>5th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>anemometer</td>
<td>behavioral adaptation</td>
<td>chemical properties</td>
</tr>
<tr>
<td>atmosphere</td>
<td>camouflage</td>
<td>commensalism</td>
</tr>
<tr>
<td>barometer</td>
<td>carnivore</td>
<td>conduction</td>
</tr>
<tr>
<td>cirrus</td>
<td>cell and cell parts (wall, membrane, cytoplasm, nucleus, vacuoles)</td>
<td>convection</td>
</tr>
<tr>
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6th Grade

abiotic
atmospheric convection
adaptive engineered technologies
assistive engineered technologies
asteroid
bias
biome
biosphere
biotic
cause and effect
chemical potential energy
climatic change
conductivity
control
criteria
design constraint
elastic potential
electrical conductor
energy transformation
gravitational potential energy
hygrometer
meteorological data
ocean current
protocol
prototype
psychrometer
scavengers
simple circuits
tides
variable

7th Grade

acceleration
amplitude
asexual reproduction
cell division
cell organelles (ribosome, mitochondria, chloroplast, vacuole, lysosome)
chromosome
crest
diffusion
dominant trait
gene
 genetic characteristic
 genetic engineering
 genotyp
 igneous
 longitudinal wave
 mechanical advantage
 metamorphic
 minerals
 mitosis
 momentum
 monohybrid cross
 organ system
 osmosis
 phenomenon
 phenotype
 Punnett square
 recessive trait
 respiration
 rock cycle
 sedimentary
 semi-permeable
 sexual reproduction
 simple machines
 speed
 synthesize
 tissue
 transverse wave
 trough
 velocity

8th Grade

acid
atom (electron, neutron, proton)
atomic mass
atomic number
base
biodiversity
chemical change
chemical equation
class
compound
density
dichotomous key
diffusion
domain
electromagnet
electron
element
endothermic
exothermic
family
genus
gravitation (universal law)
kingdom
magnetic field
neutral
neutron
order
particle motion
physiological adaptation
phylum
product
proton
reactant
species
variation
Biology

ATP synthesis
active/passive transport
aerobic/anaerobic
respiration
allele
analogous
autotroph/heterotroph
biogeochemical cycle
biological succession
biomass
carrying capacity
catalyst
cell organelles (nucleolus, Golgi apparatus, endoplasmic reticulum)
cloning
concentration gradient
convergent/divergent
evolution
DNA fingerprint
dihybrid cross
diploid/haploid
dynamic equilibrium
endo/exocytosis
enzyme
eukaryote/prokaryote
evolution
hetero/homozygous
homeostasis
homologous
hyper/hypotonic solution
innate/learned behavior
karyotype
Linnean taxonomy
macromolecules
meiosis
mitochondrial DNA
modes of inheritance
   (incomplete dominance, multiple alleles, polygenic)
mutation
natural selection
nucleic acid
pedigree
phylogeny
plasmolysis
population growth curve
protein synthesis
RNA

Earth Science

absolute time
acid rain
atmospheric cycle
Big Bang Theory
cleavage
convection currents
Earth’s inclination
fossil record
fracture
geochemical cycle
geologic cycle
glaciers
global warming
gravitational effects
greenhouse effect
hydrologic cycle
Mohs scale
oscillating/pulsating theory
ozone depletion
paleoclimates
paleomagnetism
physiographic region
plate tectonics
plate boundaries
   (convergent, divergent)
radioactive decay
relative time
topographic map
tsunami
solar flares
superposition
tectonic cycle
uniformitarianism
Physical Science

amphere
Archimedes principle
(buoyancy, buoyant force)
atomic theory
balanced equation
Bernoulli’s principle
buffer
catalyst
chemical formula
chemical symbol
coefficient
colloid
covalent bonding
current
diffraction
efficiency
electron cloud
extensive/intensive
property
friction (sliding, rolling, static)
gas laws (Boyles, Charles)
gravitational potential
energy
heterogeneous
homogeneous
indicator
ion
isotopes
interference (constructive, destructive)
ionic bonding
Kelvin
kinetic theory (phase change, heat, molecular motion)
metalloid
nuclear fission
nuclear fusion
Pascal’s principle (fluid, pressure)
periodic table (groups, periods, oxidation number)
plasma
refraction
resistance
solution
specific heat
suspension
subscript
thermodynamics (conduction, convection, radiation)
valence electron
voltage
waves (transverse, longitudinal, compression, mechanical, electromagnetic)
Kindergarten

Celebration
Family
Holiday
Honesty
Human
Job
Leader
Community
Map
Globe
Rules
Respect
Neighborhood
Transportation
Tennessee
United States of America
Vote
Computer
Wants
Basic needs (food, clothing, shelter)
Cooperation
Pledge
President

1st Grade

Citizen
City
State
Country
Continent
Ocean
Election
Equality
Equator
Flag
History
Independence
Law(s)
Governor
Past
Present
Future
Rights
Responsibilities
Veteran(s)
Technology
Language
Culture
Values
Patriotic

2nd Grade

Authority
Climate
County
Custom
Conflict
Decision
Duty
Growth
Government
Justice
Landmark
Privilege
Qualifications
Rural
Urban
Services
Goods
Settlement
Symbol
Tradition
Volunteer
Time line
Contribution
Economy
Consumer
Producer
Events
History
Natural resources
River
Map key
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US History

Anti-semitism
Appeasement
Assimilation
Blockade
Calamity
Capitalism
Communism
Conformity
Consumerism
Containment
Counterculture
Deficit
Espionage
Extractive Economies
Fascism
Feminism
Imperialism
Industrialism
Inequities
Influx
Innovator
Interventionist
Isolationism
Laissez faire
Mercantilism
Militarism
Modernization
Nationalism
Nativism
Political patronage
Populism
Prepossession
Progressivism
Prohibition
Proliferation
Propaganda
Quotas
Social security
Tariffs
Totalitarianism

World History

Appeasement
Aristocracy
Armistice
Conformity
Coup
Disseminate
Enlightenment
Expropriation
Genocide
Guerilla Warfare
Homogenous
Humanism
Imperialism
Indigenous
Manorialism
Mercantilism
Monastic
Monetary
Proletariate
Propaganda
Reform
Reparations
Sanction
Socioeconomic
Stereotyping
Synthesize
Totalitarianism
Tribal Systems

Personal Finance

Accrued
Annuities
Balloon
Bankruptcy
Budget
Cafeteria Plan
Collateral
Debit
Delinquency
Diversification
Estate
Equity
Foreclosure
Garnishment
Identity Theft
Income
Loan sharking
Mortgage
Opportunity cost
Predatory lending
Reconciling
Reimbursement
Repossession
Secured debt
Social Security
Unsecured debt
References


Vocabulary University
http://www.vocabulary.com/index.html Vocabulary University is an online resource for working on groups of related vocabulary words in a puzzle format. It is broken into beginning, intermediate, and college-level work, and is nicely organized resources for ESL students. (maintained by the College of Arts & Sciences of Ohio University)

Building vocabulary including SAT quizzes
http://grammar.ccc.commnet.edu/grammar/vocabulary.htm

Tennessee word lists
http://www.state.tn.us/education/ci/standards/doc/WordList_Final%208206.doc

Article on the literacy of mathematics and how one teacher promotes writing in math class.

http://verizonfails.ytmnd.com/
Importance of understanding mathematical symbols.

http://jc-schools.net/tutorials/vocab/
Jefferson County Schools Vocab website, lots of games, templates!


Tennessee Academic Vocabulary 2005:

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Etta Crittenden     TN Reading Coordinator
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Rica M. Davis     Memphis City Schools
Brenda Dean     Hamblen County Schools
Nancy Duggin     Tennessee Education Association
Scott Eddins     TN Math Consultant
Thomas Eric Ellison     Franklin Special School District
Penny B. Ferguson     Maryville City School System
Acacia Ford     Henry County Schools
Angela Fresh     White County Schools
Norma Gerrell     Paris Special School District
Joan Gray     Bedford County Schools
Carroll M. Gunter     Macon County Schools
R. Fredrick Harding     Van Buren County Schools
Rhiannon Harris     Robertson County Schools
Ann Harris     Austin Peay State University
Gaye Hawks     Lebanon Special School District
Julpenia Hill     Hamilton County Schools
Tracy D. Hinson     Lake County Schools
Daphne L. Jones     Memphis City Schools
Linda Jordan     TN Science Consultant
Carol G. Junot     Hawkins County Schools
Vernita Justice     Hamilton County Schools
Suzanne Keefe     Lake County Schools
Eddie Keel     Haywood County Schools
Arika Landry     Metro Nashville Public Schools  
Sandra Lawrence     Metro Nashville Public Schools  
Barbara Long     Rutherford County Schools  
Robert J. Marzano     Marzano & Associates  
Connie Mayo     TN Director of Elementary Education  
Anne McCraw     Rutherford County Schools  
Ronald McKinney     Knox County Schools  
Sherry McMahan     Franklin Special School District  
Nancy Mullins McNeal     Warren County Schools  
Amy Melendy     Knox County Schools  
Candace A. Minor     Henderson County Schools  
Cathy D. Moore     Milan Special School District  
Denise Neal     Knox County Schools  
Mildred Nelson     Metro Nashville Public Schools  
Fran Owen     Sevier County Schools  
Bryan Paschal     Knox County Schools  
Billy M. Pullen     Shelby County Schools  
Beverly L. Ramsey     Warren County Schools  
June Reasons     Shelby County Schools  
Christy Ruskey     Roane County Schools  
Valerie Rutledge     University of TN Chattanooga/State Board of Education  
Elena Seaton     Murfreesboro City Schools  
Patricia Shelton     Cheatham County Schools  
Nancy Shumate     TN Language Arts Coordinator  
McLinda B. Simmons     Manchester City Schools  
Heather Simms     Montgomery County Schools  
William E. Smith     Johnson City Schools  
Doug Smith     Overton County Schools  
Selina T. Sparkman     Memphis City Schools  
Suzanne Stelling     Knox County Schools  
Cynthia Stowers     Rhea County Schools  
Karen Strickland     Lexington City Schools  
Yvonne D. Thomas     Jackson-Madison County Schools  
Leslie Thompson     Wilson County Schools  
Kim Vernon     Bedford County Schools  
Sandra Villines     Wayne County Schools  
Lori Anne Williams     Clarksville-Montgomery County Schools  
Crystal Williams     Henderson County Schools  
Amanda Wilson     Henry County Schools  
Kim Worley     Dyersburg City Schools  
Cindy L. Young     Manchester City Schools
Revision Committee for 2009:

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<tr>
<td>Angela Allen</td>
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**Tennessee Department of Education**

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<tr>
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<tbody>
<tr>
<td>Brenda Ables</td>
<td>Director, Secondary Education</td>
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<tr>
<td>Linda Creek</td>
<td>Middle Grades Consultant</td>
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<tr>
<td>Etta Crittenden</td>
<td>Elementary Literacy Specialist</td>
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<tr>
<td>Jeanette Crosswhite</td>
<td>Director of Arts Education &amp; Foreign Language Consultant</td>
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<tr>
<td>James Herman</td>
<td>English/Language Arts Consultant</td>
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<tr>
<td>Linda Jordan</td>
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<td>Jan Lanier</td>
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<td>Bobbi Lussier</td>
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<td>Smith, Connie</td>
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<tr>
<td>Steve Sparks</td>
<td>Assistant Commissioner, Accountability, Federal Programs, Teaching &amp; Learning</td>
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<td>Watson, Gwendolyn</td>
<td>Special Education Consultant</td>
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<tr>
<td></td>
<td>Executive Director Elementary Education, Urban Specialist, &amp; Achievement Gap Elimination</td>
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