

# **Tennessee Academic Vocabulary**

## **A Guide for Tennessee Educators**



## **Tennessee Department of Education**

**Timothy K. Webb, Commissioner**

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TNAV

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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**

	Language Arts	Mathematics	Science	Social Studies
Grade K	28	31	27	22
Grade 1	22	33	26	25
Grade 2	27	36	27	25
Grade 3	31	36	29	31
Grade 4	26	34	32	30
Grade 5	26	35	26	32
Grade 6	24	37	30	32
Grade 7	27	24	39	16
Grade 8	34	22	35	36
Grade 9	25			
Grade 10	22			
Algebra I		29		
Geometry		42		
Algebra II		32		
Biology			55	
Earth Science			32	
Physical Science			45	
Economics				31
Geography				19
Government				43
U. S. History				40
World History				29
Personal Finance				26

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.

#### 4. Connection: Math Word Meaning - Common Language Usage

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.

<b><i>term/word/phrase:</i></b>	
<b><i>Definitions</i></b>	
<b><i>Common Language Usage</i></b>	<b><i>Discipline Specific Usage</i></b>
<b><i>Sentences using the term/word/phrase</i></b>	
<b><i>Common Language Usage</i></b>	<b><i>Discipline Specific Usage</i></b>
<b><i>Same?</i></b>	
<b><i>Different?</i></b>	

### 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.

formal definition	synonym or your own words
term being addressed	
<i>labeled</i> figure, graph, or diagram that helps you to understand the term	any specific notation or special characteristics, attributes, or associations

\*\*\**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?

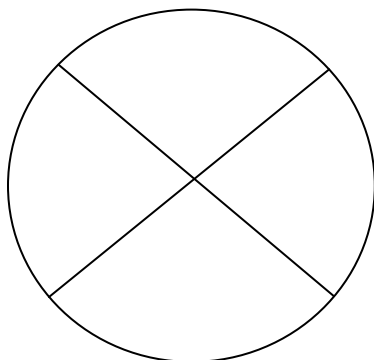
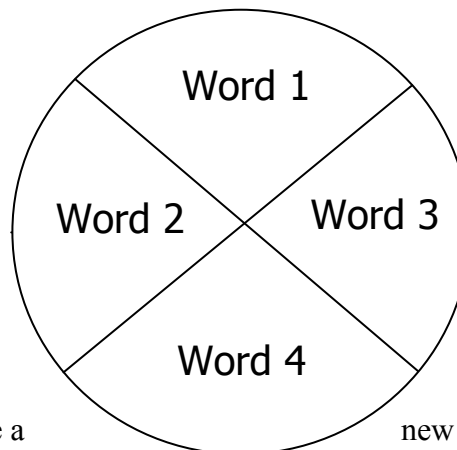
Explain.

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

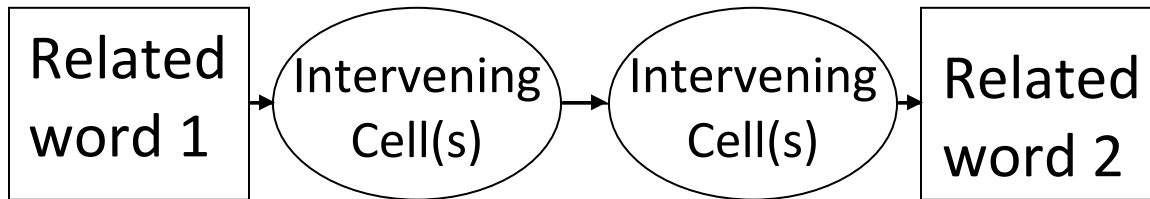
**Synonyms (or Almost Synonyms):** If there is more than one term that means the same as the target term, use that synonym interchangeably with the new word. Some students may already have an understanding of the synonymous terminology. If there is not a synonym, there might still be a term that is similar 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.

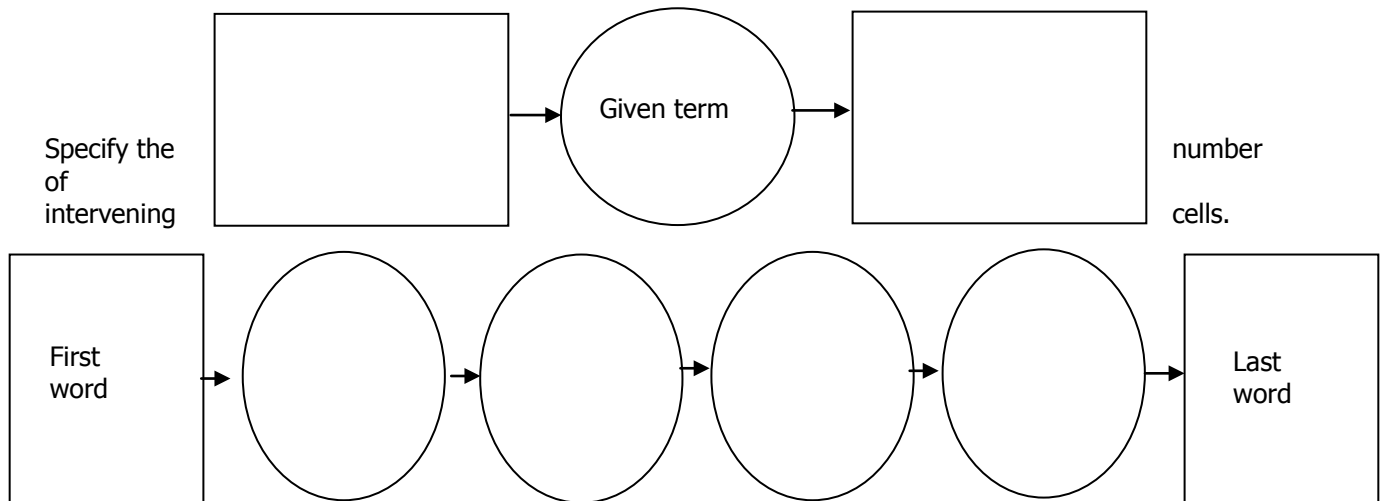
**Belong Together – Why?** Be careful about words that require sets of words to capture all of the characteristics that that word does not capture. Sometimes three terms are required to capture all cases for a situation.

**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.



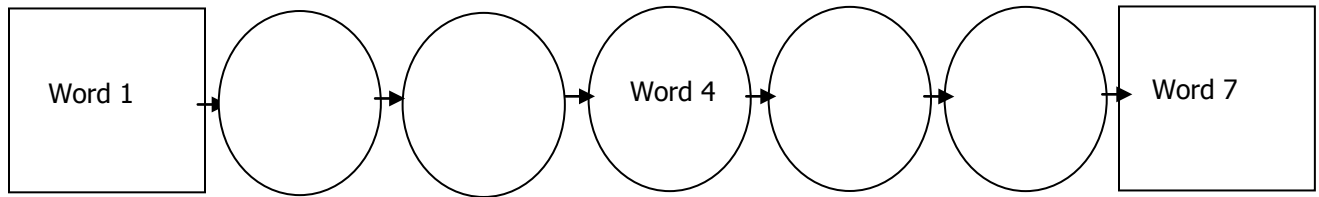
This strategy lends itself to differentiation well. The teacher may indicate how many cells intervene or leave that to the student. The teacher may fill in some of the intervening cells when students are learning new terms and not fill in any after students have mastered concepts. Students can design 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. .



Allow student to determine the number of intervening cells.



Establish some of the intervening skills to scaffold.



Adapted from

**Words, Words, Words** by Janet Allen, Stenhouse Publishers, 1999.

**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**

\_\_\_\_\_ and \_\_\_\_\_ are similar because they both

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

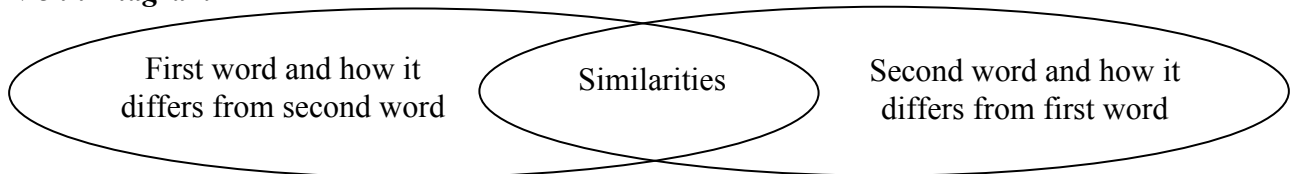
\_\_\_\_\_ and \_\_\_\_\_ are different because (same characteristic each line)

1. \_\_\_\_\_ is \_\_\_\_\_ but \_\_\_\_\_ is \_\_\_\_\_

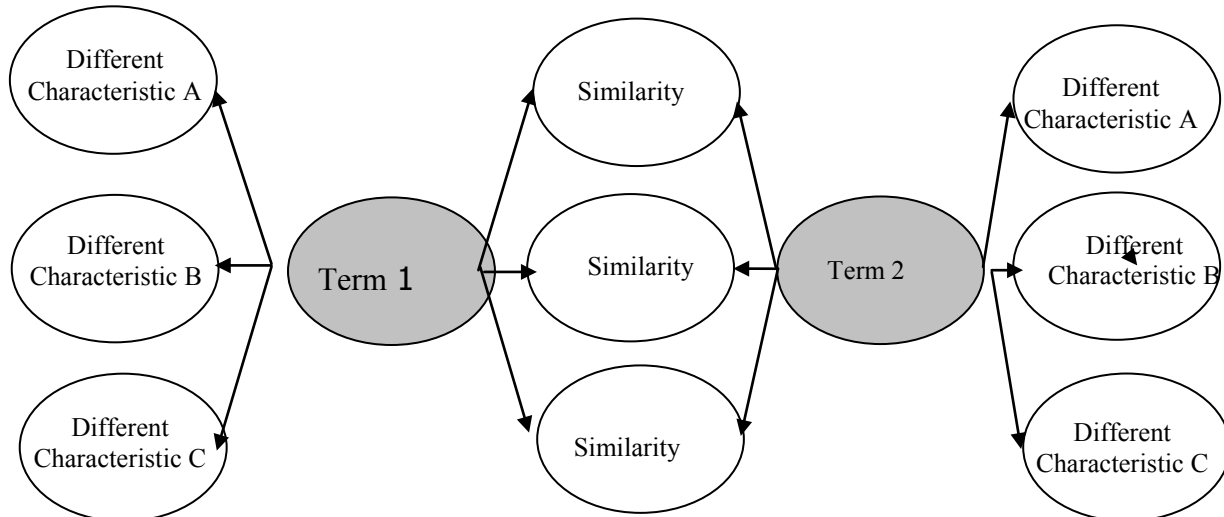
2. \_\_\_\_\_ is \_\_\_\_\_ but \_\_\_\_\_ is \_\_\_\_\_

3. \_\_\_\_\_ is \_\_\_\_\_ but \_\_\_\_\_ is \_\_\_\_\_

**Venn Diagram**



**Graphic Organizer**



## **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 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.

# ENGLISH / LANGUAGE ARTS

## Kindergarten

Alphabet  
 Author  
 Illustrator  
 Beginning  
 Ending  
 Consonant  
 Vowel  
 Drawing  
 Fairy tale  
 Letter  
 Letter sound relationship  
 Picture book  
 Poem  
 Story  
 Song  
 Print  
 Retell  
 Rhyme  
 Sentence  
 Speech  
 Title  
 Uppercase (capital)  
 Lower case  
 Word  
 Period  
 Question mark  
 Exclamation mark  
 Read

## 1st Grade

Blend  
 Capitalization  
 Character  
 Setting  
 Consonant  
 Vowel sound  
 Fantasy  
 Illustrate  
 Sequence  
 Predict  
 Punctuation (e.g., comma, quotation, etc.)  
 Question  
 Statement  
 Reality  
 Syllable  
 Vocabulary  
 Media (e.g., book, video, film, illustrations)  
 Summarize  
 Information  
 Noun  
 Verb  
 Compound word

## 2nd Grade

Adjective  
 Adverb  
 Pronoun  
 Dictionary  
 Encyclopedia  
 Fiction  
 Nonfiction  
 Folktale  
 Fables  
 Discussion  
 Main idea  
 Message  
 Predicting  
 Prewrite  
 Draft  
 Edit  
 Publish  
 Author's purpose  
 Table of contents  
 Glossary  
 Singular  
 Plural  
 Plot  
 Punctuation (e.g., comma, semi-colon, etc.)  
 Base (root) word  
 Prefixes  
 Suffixes

### 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



## 6th Grade

Employ  
Foreign phrases  
Genre  
Hyperbole  
Imagery  
Inference  
Mnemonic devices  
Writing modes  
Multiple meanings  
Personification  
Rhyme  
Rhythm  
Point of view  
Propaganda  
Relevant  
Relevancy  
Sequential order  
Sidebars  
Simile  
Symbolism  
Text features  
Thesis statement  
Stressed/unstressed  
syllables  
Clauses

## 7th Grade

Interaction with texts  
Paraphrase  
Etymology  
Semantic change  
Connotation  
Denotation  
Stress  
Pitch  
Juncture  
Onomatopoeia  
Accent  
Repetition  
Foreign phrases  
Internal rhyme  
Irony  
Mood  
Foreshadowing  
Flashback  
Tone  
Inferences  
Viewpoint  
Epilogue  
Assonance  
Consonance  
Nuance  
Climax  
Double-negative

## 8th Grade

Allusion  
Antecedent  
Bias  
Clincher sentence  
Coherent order  
Composition  
Cross-reference  
Debate  
Derivation  
Dramatization  
Elaboration  
Facilitator (role  
identification/groups)  
Gerund  
Inferring  
Jargon  
Inductive reasoning  
Deductive reasoning  
Inflection  
Enunciation  
Rate  
Pitch  
Participles  
Persuasive writing  
Preface  
Reliability  
Sensory detail  
Shades of meaning  
Tension  
Thesis statement  
Mood/tone  
Acronyms  
Sidebars  
Footnotes  
Endnotes

## 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

# MATHEMATICS

## Kindergarten

Addition  
Afternoon  
Calendar  
Cardinal number  
Classify  
Compare  
Date  
Difference  
Dime  
Hour  
Location  
Minus  
Morning  
Nickel  
Number  
Order  
Ordinal number  
Pattern  
Penny  
Position  
Quarter  
Shapes  
Sort  
Subtraction  
Sum  
Time  
Today  
Tomorrow  
Value  
Yesterday  
Zero

## 1st Grade

Data  
Digit  
Direction  
Equal to  
Estimate  
Even  
Graph  
Greater than/less than  
Half-hour  
Horizontal  
Length  
Measure/measurement  
Minute  
Month  
Number sentence  
Numeral  
Odd  
One-half  
Part  
Place value  
Plus  
Ruler  
Skip count  
Solve  
Symbol  
Total  
Unit (standard, non-  
standard)  
Vertical  
Week  
Weight, scales  
Whole  
Whole number  
Year

## 2nd Grade

Associative property  
Base-ten system  
Commutative property  
Dimensions  
Distance  
Dollar  
Elapsed time/time interval  
Equivalent  
Event  
Expanded form  
Extend  
Foot  
Fraction  
Inch  
Interpret  
Kilogram  
Likely/unlikely  
Meter/centimeter  
Multiplication  
One-fourth  
One-third  
Outcome  
Perimeter  
Pound  
Quarter-hour  
Reflect  
Rotate  
Second (time)  
Set  
Symmetry  
Table  
Transformations  
Transitive  
Translate  
Unknown  
Yard

### 3rd Grade

Angle  
Area  
Array  
Capacity  
Change (money)  
Conclusion  
Congruent  
Conjecture  
Decimal  
Denominator (like, unlike)  
Distributive  
Dividend  
Division  
Divisor  
Factor  
Frequency table, tally chart  
Gram  
Intersecting lines  
Inverse relationships  
Kilometer  
Line plot  
Line of symmetry  
Line, line segment  
Liquid measures  
Mile  
Multiples  
Numerator  
Ounce  
Parallel  
Perpendicular  
Pictograph  
Polygon  
Product  
Quotient  
Reasonableness  
Unit fraction

### 4th Grade

Accuracy  
Acute  
Chance  
Common fraction  
Composite  
Computation  
Convert  
Coordinate system  
Diameter  
Equation  
Expression  
Face of a polyhedron  
Function table  
Improper fraction  
Inverse operation  
Measures of central tendency (mean, median, mode)  
Mixed number  
Obtuse  
Ordered pairs  
Pattern rules  
Prime  
Probability  
Proper fraction  
Quadrant  
Radius (pl. radii)  
Range  
Relationship  
Remainder  
Right  
Scale of instrument/graph  
Square unit  
Stem-and-leaf plot  
Tiling/tessellation  
Vertex (pl. vertices)

### 5th Grade

Algorithm  
Categorical data  
Convex polygon  
Data collection methods  
Divisibility  
Edge  
Exponent  
Exponential notation  
Formula  
Inequality  
Irregular  
Justify  
Line graph  
Model  
Natural numbers  
Numerical data  
Order of operations  
Outlier  
Parallelogram  
Polyhedral solid  
Prism  
Rational numbers  
Regular (Platonic) solid  
Remainder  
Round  
Significant digits  
Solution  
Substitution property  
Surface area  
Terminating decimal  
Truncate  
Undefined  
Variable  
View  
Volume

## 6th Grade

Base (of exponent)  
Cartesian coordinate system  
Circumference  
Compound event  
Degree (angles)  
Dependent events  
Dilation  
Equiangular  
Equilateral  
Experimental probability  
Inequality Theorem  
Integers  
Interior/exterior angles  
Isosceles  
Negative  
Odds  
Percent  
Pi  
Poll  
Power  
Prime factorization  
Protractor  
Pyramid  
Qualitative graph  
Random  
Rate  
Ratio  
Repeating decimal  
Sample bias  
Sample space  
Sample, sample data  
Scalene  
Similarity  
Simple event  
Simulation  
Theoretical probability  
Triangle

## 7th Grade

Absolute value  
Additive inverses  
Box & whisker plot  
Coefficient  
Cube root  
Function  
Function notation  
Greatest common divisor  
Greatest common factor  
Histograms  
Intercepts  
Interquartile range  
Least common multiple  
Linear equation  
Negative exponents  
Perfect square  
Property  
Proportional relationships  
Quartile  
Scatter plots  
Scientific notation  
Slope  
Square root  
Unit rates

## 8th Grade

Adjacent angles  
Alternate exterior angles  
Alternate interior angles  
Complementary angles  
Corresponding angles  
 $D=rt$  (distance = rate x time)  
Function families  
Hypotenuse  
Infinite  
Legs of a triangle  
Line of best fit (conceptual)  
Monomial  
Nonlinear equation  
Perfect square  
Pythagorean Theorem  
Quadratic equations  
Sequence  
Slope intercept form  
Supplementary angles  
Transversal  
Vertical angles  
Vertical line test

## 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



### 3rd Grade

anemometer  
atmosphere  
barometer  
cirrus  
cross section  
cumulonimbus  
cumulus  
conductor  
conservation  
crystallize  
decomposer  
endangered  
force  
heredity  
mixture  
natural resources  
orbit  
physical change  
pitch/volume  
predator/prey  
rain gauge  
revolution  
rotation  
solar system  
stratus  
threatened  
thriving  
water cycle  
wind vane

### 4th Grade

behavioral adaptation  
camouflage  
carnivore  
cell and cell parts (wall,  
membrane, cytoplasm,  
nucleus, vacuoles)  
chemical energy  
climate  
condensation  
deposition  
eclipse (solar/lunar)  
ecosystem  
electricity  
energy pyramid  
erosion  
food web  
friction  
herbivore  
lunar cycle  
mass  
metamorphosis  
(complete/incomplete)  
migration  
mimicry  
omnivore  
opaque  
physical adaptation  
physical change  
producer/consumer  
radiant energy  
reflection  
refraction  
reproduction  
transparent  
translucent  
weathering

### 5th Grade

chemical properties  
commensalism  
conduction  
constellation  
convection  
core  
crust  
dissipate  
earthquake  
faulting  
gravity  
hurricane  
inherited traits  
kinetic energy  
parasite  
parasitism  
photosynthesis  
plane  
plate movement  
potential energy  
radiation  
states of matter  
symbiosis  
tornado  
tsunami  
volcano

## 6th Grade

abiotic  
atmospheric convection  
adaptive engineered  
technologies  
assistive engineered  
technologies  
asteroid  
bias  
biome  
biosphere  
biotic  
cause and effect  
chemical potential energy  
climate change  
conductivity  
control  
criteria  
design constraint  
elastic potential  
electrical conductor  
energy transformation  
gravitational potential  
energy  
hygrometer  
meterological 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  
genotype  
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

ampere  
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)

# SOCIAL STUDIES

## 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

### 3rd Grade

Agriculture  
Artifact  
Ancestor  
Barter  
Borders  
Cardinal directions  
Distribution  
Economy  
Ethnic  
Exports  
Geography  
Global  
Hemisphere  
Imports  
Industry  
Manufacturing  
Landforms  
Latitude  
Longitude  
Legend  
Natural resources  
Physical map  
Population  
Primary source  
Product  
Scarcity  
Rural  
Suburban  
Urban  
Tools  
Weapons

### 4th Grade

American Revolution  
Amendment  
Ancient civilizations  
Articles of Confederation  
Colony  
Bill of Rights  
Document  
Constitution  
Diversity  
Democracy  
Expansion  
Exploration  
Executive branch  
Judicial branch  
Legislative branch  
Louisiana Purchase  
Mayflower Compact  
Missions  
Merchant  
Native America  
Population  
Preamble  
Religion  
Secondary source  
Slavery  
Supply and demand  
Political  
Trade routes  
Tributary  
Taxes

### 5th Grade

Tariff  
Abolitionists  
Aviation  
Annex  
Boycott  
Bias  
Border states  
Boundary  
Civil War  
Civil Rights  
Confederate States of  
America  
Debt  
Credit  
Federal  
Great Depression  
Historian  
Human Rights  
Integration  
Immigrant  
Industrialization  
Labor Union  
Migration  
Oral history  
Region  
Settlement House  
Secondary source  
Union  
Urbanization  
Sectionalism  
Reconstruction  
Suffrage  
Segregation

## 6th Grade

Ancient  
Civilizations  
Irrigation  
Middle Ages  
Monarchy  
Nomadic  
Technological  
Empire  
Epics  
Feudalism  
Renaissance  
Anthropology  
Republics  
Caste  
Cultural diffusion  
Archaeologists  
Theocracy  
Philosophy  
Geologist  
Polytheism  
Cuneiform  
Globalization  
Interdependence  
(economic)  
Class  
Dynasty  
Hieroglyphics  
Dark Ages  
Classical  
Cartouche  
Plague  
Mythology  
Medieval

## 7th Grade

Colonization  
Demographics  
Urbanization  
Impact  
Prime Meridian  
International Date Line  
Time zone  
GIS/GPS  
Capitalism  
Communism  
Socialism  
Free enterprise  
Tributary  
Topography  
Physical processes  
Spatial

## 8th Grade

Philanthropy  
Altruism  
Antebellum  
Absolute  
Exchange  
Commerce  
Congressional  
Civic efficacy  
Constitutional  
Contract  
Consumption  
Autocracy  
Oligarchy  
Dictatorship  
Diplomacy  
Domestic  
Doctrine  
Federalism  
Holocaust  
Human impact  
Infrastructure  
Insurrection  
Interdependence  
International  
Map projections  
Nationalism  
Magna Carta  
Recession  
Relative  
Republicanism  
Social norms  
Totalitarian  
Vernacular  
Autocracy  
Oligarchy  
Dictatorship

## **Economics**

Accommodation  
Aggregate  
Arbitration  
Assimilation  
Capital  
Capitalism  
Consumerism  
Corporation  
Deficit  
Entrepreneurship  
Fiscal  
Governance  
Gross National Product  
Incentives  
Inflation  
Injunctions  
Innovation  
Interest  
Marginal  
Monetary  
Monopoly  
Opportunity Cost  
Profit  
Productive  
Regulation  
Social Security  
Socialism  
Socioeconomic  
Telecommunication  
Trust  
Utility

## **Geography**

Bilingual  
Capital  
Cohesiveness  
Commodity  
Diffusion  
Distribution  
Diversity  
Gross Domestic Product  
Indigenous  
Monotheism  
Peripheral  
Polytheism  
Regionalization  
Silt  
Symbiotic  
Tertiary  
Utilization  
Urbanization  
Welfare

## **US Government**

Affirmative Action  
Alliances  
Amendment  
Amnesty  
Anarchy  
Appellate  
Bicameral  
Capitalism  
Census  
Civil  
Concurrent  
Conformity  
Conservatism  
De facto  
Efficacy  
Elastic Clause  
Eminent domain  
Entitlements  
Expressed  
Filibusters  
Gerrymandering  
Globalization  
Impeach  
Implied  
Inherent  
Jurisdiction  
Liberalism  
Litigant  
Multilateral  
Municipality  
Naturalization  
Ordinance  
Pardon  
Platform  
Propaganda  
Redistricting  
Reserved  
Sanctions  
Sovereignty  
Stereotyping  
Treaties  
Welfare  
Zoning



## **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  
Eradication  
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

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- Building vocabulary including SAT quizzes  
<http://grammar.ccc.commnet.edu/grammar/vocabulary.htm>
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Hamblen County  
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Cheatham County  
Shelby County  
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Sevier County  
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