

Progress Tracker

WORDSMART® Progress Tracker

Session Begins: _____ Session Ends: _____

Which Volume are you in?: A B C D E F G H I J

Name: _____

WORD GROUPS Beginning Group? (Circle One)	1	2	3	4	5	6
WordSmart Games Games 1 & 2: Learn & Practice (Learn the words. Practice for the Game 3 Challenge!)						
1 Multiple Choice Challenge Learn the Words	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p
2 Column Matching Earn the Words	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p
3 Sentence Completion Get them for Life! (Spelling Too!)	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p
Points Subtotal	Teacher's Initials	Teacher's Initials	Teacher's Initials	Teacher's Initials	Teacher's Initials	Teacher's Initials
Laser Game Bonus Points Know Your Stuff?	≥ 70% 2 p	≥ 70% 2 p	≥ 70% 2 p	≥ 70% 2 p	≥ 70% 2 p	≥ 70% 2 p
	100% 5 p	100% 5 p	100% 5 p	100% 5 p	100% 5 p	100% 5 p
	≥ 80% 100%	≥ 80% 100%	≥ 80% 100%	≥ 80% 100%	≥ 80% 100%	≥ 80% 100%
	≥ 90% 100%	≥ 90% 100%	≥ 90% 100%	≥ 90% 100%	≥ 90% 100%	≥ 90% 100%
	100% 4 p	100% 4 p	100% 4 p	100% 4 p	100% 4 p	100% 4 p

Teacher's Edition

WordSmart Learning Lab

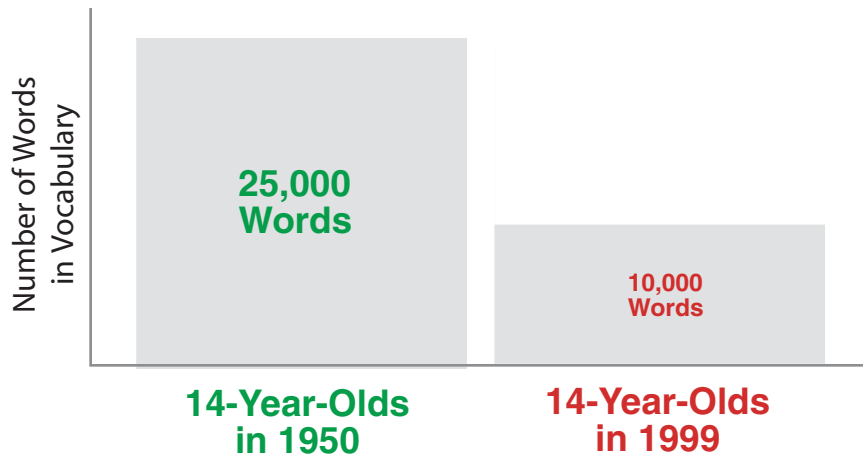
Knowledge depends on it... Vocabulary

WORDSMART

Student Progress Trackers

*Since 1950 American Teenagers Have
Lost 15,000 Words!*

American Word Power--
Gone for Good?



—Gallup Poll, 1999

The vocabulary gap hurts American students' performance in reading, math, science, and all other academic subjects.

(For example: the US is 17th in the world in science, 18th in math!)

Name:

Reading Acceleration Program

Student Progress Binder *Teachers' Edition*

- *WordSmart*
- *Progressive Reader*
- *Reading "Outside the Box"*

1. WordSmart "Target Score" Progress Tracker

- Notes: *Why Progress Trackers?*
- 1-2 Columns (20-40 Words) a Session
~ to Close the Vocabulary Gap!

2. Progressive Reader "Target Score" Progress Tracker

- Notes: *Why Progressive Reader?*
- 1-2 Rows (2-4 Essays) a Session ~ for
Improved Speed & Comprehension.

3. "Reading Pie" Progress Tracker

- Notes: *Vocabulary Leveled Booklists*
- **"Reading Outside the Box"**
Independent-Reading Program:
Read at home, we'll give you credit!
- Sample WordSmart **Booklist**

4. Research on Vocabulary

- The Grandparents' Gap~ 15,000 words
lost since 1950!
- The Reading Gap~ After 2nd Grade....
- Research Paper ~ *Vocabulary, the
"Missing Link" in Reading Education*

5. Setting Up WordSmart

- Optimizing WordSmart for Classroom
or Lab Use

1. Notes on WordSmart

- **Sample WordSmart Tracker**

Notes on the "Target Score" Progress Trackers:

1. **Independent Learning & Productivity** are the major benefits of using the Progress Trackers with WordSmart's Vocabulary Software:

The idea here is to give the students a clear "path to success"--all the learning goals on day one so that they (a) internalize them and drive the learning process; and (b) never need to ask a teacher what to do next!

We find that children get addicted to the the sense of progress they get filling in their own targets completed (with a highlighter) and that we have to ask them to leave when class is over! Students get the most out of every minute of available computer time.

2. **Repetition (with Variety, & without Drudgery)** is a second benefit.

Using the Target Score "Pass/Try Again" credit system, students work till they achieve minimum scores ("Targets")— when they just miss (e.g., earning 65% when they need 70%) they are encouraged by the teacher to "TRY AGAIN! You're almost there." They do! The game "Path" (1. Learn the Words, 2. Earn the Words, 3. Get Them For Life), and the Bonus incentives are set up so that in each column (Word Group) a student might repeat the 20 words up to 6 times, all without coercion! It works wonders in extended day programs when children are often too tired to do useful paper-and-pencil work.

* Please note: in the first game, Multiple Choice, the student learns the words by *trial and error*. Guessing if necessary, until s/he gets the right answer. Only for words the student missed once does the program give a definition and background. We coach students to read far enough to get the definition of a word they missed; after that it's their choice whether they want to continue learning all the Greek, Latin, and Anglo Saxon roots! or exit back to the game.

3. **The "Written Test Bonus"** refers to the printable vocabulary tests you may print for each child, according to his or her level.

We recommend you use the Sentence Completion Version (Multiple Choice is also available), wait at least a week, and use the same PASS/TRY AGAIN system students are used to on the rest of the "Target Scores" Tracker— i.e., let students Try & Try Again on the written tests until they hit the minimum target score (80%, 4 wrong out of 20).

4. **Vocabulary Linked to Core Subject Grades:** Progress Trackers work best if they are linked to a school's grading system.¹

We leave it to teachers to set two variables on the Progress Tracker:

(a) Length of Grading Session--how long do students have to reach the "A" level of achievement? If students are meeting everyday for at least 20 minutes of WordSmart, 1 quarter is reasonable; if only twice a week, a semester is better. Teachers will have to play with this.

(b) The Percent of final English or Reading grade (quarter or semester) comprised by WordSmart vocabulary: e.g. "WordSmart Vocabulary is 10% of your English 101 grade."

¹ If you choose not to make vocabulary part of the grading system, then some other incentive system (gift certificates, etc.,) will work...

WORDSMART® Progress Tracker

Name: _____

Which Volume are you in?: A B C D E F G H I J

WORD GROUPS Beginning Group? (Circle One)	7	8	9	10	11	12
WordSmart Games						
1 Multiple Choice Challenge Learn the Words	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p	Play until you get ≥ 90% Fill in this box & Advance to Game 2! 2 p
2 Column Matching Earn the Words	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p	Play until you get ≥ 70% Fill in this box & Advance to Game 3! 3 p
3 Sentence Completion Get them for Life! (Spelling Too)	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group! 5 p
Points Subtotal	Teacher's Initials ≥ 70% 2 p 100% 5 p ≥ 80% 3 p	Teacher's Initials ≥ 70% 2 p 100% 5 p ≥ 80% 3 p	Teacher's Initials ≥ 70% 2 p 100% 5 p ≥ 80% 3 p	Teacher's Initials ≥ 70% 2 p 100% 5 p ≥ 80% 3 p	Teacher's Initials ≥ 70% 2 p 100% 5 p ≥ 80% 3 p	Teacher's Initials ≥ 70% 2 p 100% 5 p ≥ 80% 3 p
Laser Game Bonus Points Know Your Stuff?	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p
Written Test Bonus Wait at least 1 Session	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p	100% 4 p ≥ 80% 3 p
Bonus Points Subtotal						
Total Points						

MASTERY COLUMN

Play Multiple Choice

Play with Group 6
Words until you get 100%
Fill in this box & Advance to Group 2!
4 p

Play with Group 7
Words until you get 100%
Fill in this box & Advance to Group 3!
4 p

Play with Group 8
Words until you get 100%
Fill in this box & Advance to Group 4!
4 p

Play with Group 9
Words until you get 100%
Fill in this box & Advance to Group 5!
4 p

Play with Group 10
Words until you get 100%
Fill in this box!
4 p

Name: _____

Which Volume are you in?: A B C D E F G H I J

WORD GROUPS Beginning Group? (Circle One)		13	MASTERY COLUMN
WordSmart Games			Play Multiple Choice
1 Multiple Choice Challenge Learn the Words	Play until you get ≥ 90% Fill in this box & Advance to Game 2!	2 p	Play with Group 11 Words until you get 100% Fill in this box & Advance to Group 2!
2 Column Matching Earn the Words	Play until you get ≥ 70% Fill in this box & Advance to Game 3!	3 p	Play with Group 12 Words until you get 100% Fill in this box & Advance to Group 3!
3 Sentence Completion Get them for Life! (Spelling Too)	Play until you get ≥ 85% Fill in this box & Advance to Next Word Group!	5 p	Play with Group 13 Words until you get 100% Fill in this box & Advance to Group 4!
Points Subtotal			
Laser Game Bonus Points Know Your Stuff?	Teacher's Initials	≥ 70% 2 p	
Written Test Bonus Wait at least 1 Session		100% 5 p	
Bonus Points Subtotal		≥ 80% 3 p	
Total Points		100% 4 p	

WordSmart Achievement Ladder

≥ 161 Total pts = A+ 130-139 pts = B+ 100-109 pts = C+
 150-160 pts = A 120-129 pts = B 90-99 pts = C-
 140-149 pts = A- 110-119 pts = B- < 90 pts = Keep Trying!

WordSmart Vocabulary is _____% of your English _____ grade.
 (Volume A = 260 Words)



Completed all Word Groups? Move on to the next volume!



2. Notes on Progressive Reader

- **Sample Progressive Reader Tracker**

Name:

Beginning WPM:

Progressive Reader			
Daily Reading Workout Day 1			
Human Interest			
Category	Human Interest		
Title of Reading?	"More Meows"	"Paw Trek"	Finish One Game: Reading Warmups
≥ 75% Correct?	%	%	
1 or 2 rows a day is about right, no more!	Eye Movement Game	Newspaper	Any Game
	3pts	2pts	1pt
Daily Reading Workout Day 2			
Sports			
Category	Sports		
Title of Reading?	"Bobby Jones"	"Daredevils"	Finish One Game: Eye Max
≥ 75% Correct?	%	%	
1 or 2 rows a day is about right, no more!	Eye Movement Game	Newspaper	Any Game
	3pts	2pts	1pt
Daily Reading Workout Day 3			
Innovators (Inventors)			
Category	Innovators (Inventors)		
Title of Reading?	"Little Tin Lizzie"	"Stonehenge"	Finish One Game: Reading Warmups
≥ 75% Correct?	%	%	
1 or 2 rows a day is about right, no more!	Eye Movement Game	Newspaper	Any Game
	3pts	2pts	1pt

Intro. Packet ~Readings for Students Working in WordSmart Groups A1-A5
WORDSMART Progressive Reader Progress Tracker

Name:

Beginning WPM:

Progressive Reader			
Daily Reading Workout Day 4			
Psychology			
Title of Reading?	"Psychic Policeman"	"Brodie by Day"	Finish One Game: Eye Max
≥ 75% Correct?	%	%	Eye Max
1 or 2 rows a day is about right, no more!	Eye Movement Game	Newspaper	Any Game
	3pts	2pts	1pt
	wpm	wpm	
Daily Reading Workout Day 5			
Human Interest			
Title of Reading?	"School Work"	"Man on the Move"	Finish One Game: Reading Warmups
≥ 75% Correct?	%	%	Reading Warmups
1 or 2 rows a day is about right, no more!	Eye Movement Game	Newspaper	Any Game
	3pts	2pts	1pt
	wpm	wpm	
Daily Reading Workout Day 6			
Technology			
Title of Reading?	"Super Spaghetti"	"Wind Energy"	Finish One Game: Eye Max
≥ 75% Correct?	%	%	Eye Max
1 or 2 rows a day is about right, no more!	Eye Movement Game	Newspaper	Any Game
	3pts	2pts	1pt
	wpm	wpm	

Name: _____

Beginning WPM: _____

Progressive Reader			
Daily Reading Workout Day 7			
Psychology			
Title of Reading?	"Hypnosis"	"Heredity" (about Twins)	Finish One Game: Reading Warmups
≥ 75% Correct?	%	%	
1 or 2 rows a day is about right, no more!	wpm	wpm	
	Eye Movement Game	Newspaper	Any Game
	3pts	2pts	1pt
Daily Reading Workout Day 8			
Reading Techniques			
Title of Reading?	"Reading Speeds"	"Average Reading Rate"	Finish One Game: Eye Max
≥ 75% Correct?	%	%	
1 or 2 rows a day is about right, no more!	wpm	wpm	
	Eye Movement Game	Newspaper	Any Game
	3pts	2pts	1pt

Session Begins: _____

Session Ends: _____

Progressive Reader Achievement Ladder- For Packet No. 1

≥ 161 pts	= A+	130-139 pts	= B+	100-109 pts	= C+
150-160 pts	= A	120-129 pts	= B	90-99 pts	= C-
140-149 pts	= A-	110-119 pts	= B-	< 90 pts	= Keep Trying!

Progressive Reader is _____% of your English/Reading grade.
(Packet 1 Covers 16 Essays and Stories)

3. Notes on Reading List

- **Sample “Progress Pie” Independent Reading Tracker**

Notes on the WordSmart Vocabulary-Leveled Booklists:

1. **The Right Books**— neither too easy (boredom), nor too hard (frustration): The beauty of this list is that it allows children to find and read books that match the vocabulary threshold at which they are comfortable (WordSmart defines this as the word group in which a student knows approximately 90% of the words. Johnson O'Connor research shows that learning occurs most rapidly at this threshold).

2. **Learning In A Domain:** Each learning threshold has a constellation of related words which the student is comfortable with and which the books at this level contain. Though there is no one-to-one link between each vocabulary word and a particular book (e.g., the word "democracy" does not take a student to a book on civics), teachers can use the topic headings to find books in the various core domains of their curriculum— history, science, math, literature, etc— and thus teach appropriate vocabulary *in a domain*.

3. **Topics That Catch the Eye:** As you know, interest and a good reading coach on-call are two factors that allow children to stretch themselves and read above grade level. We have also found that topic is the way to hook reluctant readers: "You like sports/animals/history? We have a book for you!" We are constantly improving our topic selections (currently working to improve art and music, e.g.).

4. **How Early to Start?** The beginning WordSmart Booklist, Volume A, is labeled grades 4th, 5th, 6th, and Up... but obviously if younger children are interested (if they've begun and are succeeding in WordSmart Volume A) there's no reason to hold them back. We say that once a child has finished the "learning to read" stage (i.e., to decode) he or she is ready for a two pronged attack on the "learning to read" stage:

(a) Ready to begin rapidly acquiring new vocabulary in the WordSmart Word Adventures Volume A game; and

(b) Ready to begin reading books with more challenging vocabulary (the beginning readers used in grades K-2 contain purposely "dumbed down" vocabulary so that children can focus on sounding out new letter combinations). The WordSmart Vocabulary-Leveled Booklists are a perfect tool to help teachers and parents find the vocabulary-appropriate books.

How Lexile Works- 5 Speeches Compared

History—Great Speeches	Lexile Score Average Sentence Length Average Log. Word Frequency*	Flesch Kincaid Readability¹ % passive sentences; Average sentence length
Lincoln’s 2 nd Inaugural Speech	1470 Average Length: 26.96 Average Log. Word Freq.: 3.51	11.5
Roosevelt’s 1 st Fireside Chat	1270 Average Length: 23.58 Average Log. Word Freq.: 3.62	11.3
Lincoln’s Gettysburg Address	1370 Average Length: 26.7 Average Log. Word Freq.: 3.59	8.4
JFK Inaugural Speech	1310 Average Length: 23.74 Average Log. Word Freq.: 3.53	11.1
MLK I Have a Dream Speech	1180 Average Length: 20.6 Average Log. Word Freq.: 3.59	7.5

*a lower “Log Word Frequency” means the author’s words are rarer in written English

The Lexile Framework for Reading is a tool that makes it possible to place readers and text on the same scale. The difference between a reader's Lexile measure and a text's Lexile measure is used to forecast the comprehension the reader will have with the text. The Lexile Framework was built on the common knowledge that text can be ordered as to difficulty, and readers can be ordered as to reading ability.

The Lexile Framework provides a common language that educators, parents and students can use in promoting and tracking student reading progress. Educators and parents worldwide have discovered the tremendous potential of Lexiles. That potential is used to help students become the best readers they can be.

To learn more, visit, www.lexile.com

¹ This scale is built into your Microsoft Word Grammar Checker, but you must enable it to get a “readability” rating on your documents.

WordSmart Reading Pie Progress Tracker

Go home and read!

Name: _____

Session Begins: _____

Session Ends: _____

WordSmart Level : A

200 Words in 10 Groups
Grades 4th, 5th, 6th, and Up
Lexile Range: 500 - 850

Reading Group 2
WordGroups A6-A10

Reading Group 1
WordGroups A1-A5

1.) Choose a Book from the lists...



WordSmart Booklist Topics
(Highlight Topics of interest)

Nature/Science
Sports
History
Art/Music
Biography
Fiction
Series

Poetry
Drama
*Award Winners
° Classics

Book Titles
(Write down the titles you've read)

WordSmart Booklist Topics
(Highlight Topics of interest)

Nature/Science
Sports
History
Art/Music
Biography
Fiction
Series

Poetry
Drama
*Award Winners
° Classics

Book Titles
(Write down the titles you've read)

2.) Read the Book!

Read until you can answer the "Need to Knows"

Reading Exam, Six "Need to Knows"

- Who wrote the book?
- What was the title?
- Give a summary of the story.
- Did you enjoy the book?
- How difficult was the reading?
- Now for the QUOTATION QUIZ: We'll read two passages and ask you to explain them in context.

1 Wouldn't Recommend 1 2 3 4 5
It Was Incredible

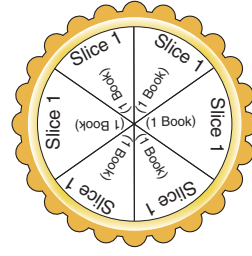
2 Easy 1 2 3 4 5
Average Very Hard



Group 1
"Reading Pie"

12/12 Slices Passed = A+
11/12 Slices Passed = A
10/12 Slices Passed = A-
9/12 Slices Passed = B+
8/12 Slices Passed = B
7/12 Slices Passed = C

1 "Book" = 50 pgs



Group 2
"Reading Pie"

Count up your slices to find your reading grade.

6 out of 6 to pass ~ If you don't pass the first time, re-read and try again!



Leveled Booklists ~ Volume A



• 200 Core Words in 10 Groups • Books For Grades 4th, 5th, 6th, and Up
Two Lists ~ Group 1: Levels A1 - A5; Group 2: Levels A6 - A10

WordSmart Leveled Booklists

Group 1: Books for Vocabulary Levels A1 - A5

Difficulty

Genre & Title

Author

(by Lexile)

Key: ^ = Core Knowledge Title/Topic; ° = Classic; * = Newberry Award Winner

WordSmart Reading Group 1: Vocabulary Levels A1 - A5 (Lexile Range 500 - 675)

Biography/Autobiography

500	Abraham Lincoln: The Great Emancipator	Stevenson, Augusta
560	Minty: A Story of Young Harriet Tubman	Schroeder, Alan
590	Clara Barton: Founder of the American Red Cross	Stevenson, Augusta
610	I am Chinese American	Lee, Amy
610	Eleanor Roosevelt: Fighter for Social Justice	Weil, Ann
620	Thomas A. Edison: Young Inventor	Guthridge, Sue
620	Great Black Heroes: Five Notable Inventors	Hudson, Wade
640	Zlata's Diary: A Child's Life in Sarajevo	Flipovic, Zlata
650	Journal of Wong Ming-Chung, The	Yep, Laurence
660	Escape to the Forest: Based on a True Story of the Holocaust	Radin, Ruth Yaffe

Fiction

500	°Anne of Green Gables	Ganci, Richard
500	Samantha's Blue Bicycle	Tripp, Valerie
500	George and Martha	Marshall, James
510	Benny and the No-Good Teacher	Zack, Cheryl
510	The Haunting of Hawthorne	Schraff, Anne
510	My Freedom Trip	Park
520	My Palace of Leaves in Sarajevo	Lorbiecki, Marybeth
520	Smuggler's Land	Avi
520	The Secret to Freedom	Vaughn, Marcia
520	Bone Man, The: A Native American Modoc Tale	Simms, Laura, retold by
540	Alison's Zinnia	Lobel, Anita
540	When the Soldiers Were Gone	Propp, Vera W.
540	Africa Brothers and Sisters	Kroll, Virginia
550	^Aladdin and Other Tales from the Arabian Nights	Kerven, Rosalind
550	Stone Fox	Gardiner, John Reynolds
550	Amos Binder, Secret Agent	Paulsen, Gary
550	The Cafeteria Lady from the Black Lagoon	Thaler, Mike
560	Crash	Spinelli, Jerry
560	Borreguita and the Coyote	Aardema, Verna
570	*Whipping Boy	Fleischman, Sid
570	Funny Little Woman, The	Mosel, Arlene
580	Fighting Ground, The	Avi
580	Now I Will Never Leave the Dinner Table	Martin, Jane Read
580	Jumanji	Van Allsburg, Chris
590	Buffalo Woman	Goble, Paul
590	A Stitch in Time	Rinaldi, Ann
590	Children of the Fire	Robinet, Harriette Gillem
590	Flying Solo	Fletcher, Ralph

WordSmart Reading Group 1: Vocabulary Levels A1 - A5 (Lexile Range 500 - 675)

Difficulty	Genre & Title	Author
	(by Lexile) Key: ^ = Core Knowledge Title/Topic; ° = Classic; * = Newberry Award Winner	
590	Old Jake's Skirts	Scott, C. Anne
610	Summer Reading is Killing Me!	Scieszka, Jon
640	Spring Break	Steiner, Barbara
640	Wednesday Surprise, The	Bunting, Eve
650	Fallen Angels	Myers, Walter Dean
660	The Face on the Milk Carton	Cooney, Caroline B.
660	Walking Across Egypt	Edgerton, Clyde
670	^ <i>Number the Stars</i>	Lowry, Lois
670	* <i>Ella Enchanted</i>	Levine, Gail Carson
680	Black Stallion, The	Farley, Walter
NP	Harlem	Myers, Walter Dean
NP	In Daddy's Arms I Am Tall: African Americans Celebrating Fathers	Step toe, Javaka (Illustrator)
NP	Hailstones and Halibut Bones	O'Neill, Mary
	<u>History</u>	
570	Wright Brothers at Kitty Hawk, The	Sobol, Donald J.
600	I remember Somalia	Matthews, Jo
600	Great Wall of China, The	Fisher, Leonard Everett
600	America Enters World War I	Dombleski, Carol
620	A Wall of Names: The Story of the Vietnam Veterans Memorial	Donnelly, Judy
630	Aleta and the Queen: A Tale of Ancient Greece	Galloway, Priscilla
670	Anti-Slavery Movement, The	Rossi, Ann M.
670	African-American Aviators	Jones, Stanley P
670	Rainbow at Night, A: The World in Words and Pictures by Navajo Children	Hucko, Bruce
670	Lon Po Po: A Red-Riding Hood Story from China	Young, Ed
	<u>Nature/Science</u>	
500	Tornado	Byars, Betsy
510	Race to the Pole	Thompson, Gare
530	Ibis: A True Whale Story	Himmelman, John
540	Earthquake!: A Story of Old San Francisco	Kudlinski, Kathleen
540	The Internet: A Kid's Handbook	Alexander, Francie and Nancy Hechinger
560	Math Curse	Scieszka, Jon
560	The Music of Dolphins	Hesse, Karen
570	Women Explorers in Asia	McLoone, Margo
580	The Manatees of Florida	Lund, Bill
610	*Scorpions	Myers, Walter Dean
	<u>Poetry</u>	
NP	^ <i>From Sea to Shining Sea: A Treasury of American Folklore and Folksongs</i>	Cohn, Amy (editor)
NP	Beauty of the Beast: Poems from the Animal Kingdom	Prelutsky, Jack
NP	Dancing Teepees: Poems of American Indian Youth	Sneve, Virginia Driving Hawk
NP	Maples in the Mist: Children's Poems from the Tang Dynasty	Ho, Minfong
NP	Sing a Song of Popcorn: Every Child's Book of Poems	de Regniers, Schenk
NP	Outside, Inside Poems	Adoff, Arnold
NP	^ <i>Random House Book of Poetry for Children, The</i>	Prelutsky, Jack
NP	Joyful Noise: Poems for Two Voices, A	Fleischman, Paul
	<u>Sports</u>	
500	Mark McGuire: The Home Run King	Weber, Bruce
550	Atalanta: The Fastest Runner in the World	Galloway, Priscilla
560	Dribble, Shoot, Score!: An Introduction to NBA Basketball	Layden, Joe

<u>Difficulty</u>	<u>Genre & Title</u>	<u>Author</u>
(by Lexile)	Key: ^ = Core Knowledge Title/Topic; ° = Classic; * = Newberry Award Winner	
570	Coach John and his Soccer Team	Flanagan, Alice K
580	America's Champion Swimmer, Gertrude Ederle	Adler, David A.
590	The Dog That Stole Home	Christopher, Matt
610	The Stars of the WNBA	Smith, Michelle
650	3rd and Goal: Great Football of the 20th Century	Cebulash, Mel
650	Heart of A Champion	Deuker, Carl
660	Baseball's Greatest Pitchers	Kramer, S.A.

WordSmart Leveled Booklists
Group 2: Books for Vocabulary Levels A6 - A10

WordSmart Reading Group 2: Vocabulary Levels A6 - A10 (Lexile Range 675 - 850)

<u>Difficulty</u>	<u>Genre & Title</u>	<u>Author</u>
(by Lexile)	Key: ^ = Core Knowledge Title/Topic; ° = Classic; * = Newberry Award Winner	
	<u>Biography</u>	
700	Carmine's Story: A Book About a Boy Living with AIDS	Schulman, Arlene
730	So You Want to Be President?	St. George, Judith
780	Cesar Chavez	Zannos, Susan
780	Fa Mulan: The Story of a Woman Warrior	San Souci, Robert D.
800	Abraham Lincoln	Sullivan, George
810	Sugar in the Raw: Voices of Young Black Girls in America	Carrol, Rebecca
850	Beatles, The	Venezia, Miek
870	You Want Women to Vote, Lizzie Stanton?	Fritz, Jean
870	Anne Frank, Child of the Holocaust	Brown, Gene
900	Satchel Paige	Cline-Ransome, Lesa
900	Palestinian Teenage Refugees and Immigrants Speak Out	Marshood, Nabil
910	Dwight D. Eisenhower	Hudson, Wilma J.
920	Green Berets, The	Streissguth, Tom
	<u>Fiction</u>	
680	Amazing Grace	Hoffman, Mary
690	Too Many Secrets	Wright, Betty Ren
690	False Impressions	Keene, Carolyn
690	Dealing With Feeling Left Out	Middleton, Don
690	^ <i>Wringer</i>	<i>Spinelli, Jerry</i>
690	Charlotte's Web	White, E.B.
700	^ <i>Where the Red Fern Grows</i>	<i>Rawls, Wilson</i>
700	Korean Cinderella, The	Climo, Shirley
700	Sixth Grade Can Really Kill You	DeClements, Barthe
710	Journey Home	McKay Jr., Lawrence
710	Flight Number 116 Is Down	Cooney, Caroline B.
720	Riding Freedom	Ryan, Pam Munoz
720	^ <i>The Wish Giver, Three Tales of Coven Tree</i>	<i>Bill Brittain, Andrew Glass</i>
720	^ <i>Words of Stone</i>	<i>Henkes, Kevin</i>
720	Letter to Mrs. Roosevelt, A	De Young, C. Coco
730	My Navajo Sister	Schick, Eleanor
730	Back in the Beforetime	Curry, Jane Louise
730	Running Out Of Time	Haddix, Margaret Peterson
740	° A Farewell to Arms	Hemingway, Ernest
750	On Rash Hashanah and Yom Kippur	Fishman, Cathy Goldberg
750	On My Honor	Bauer, Marion Dane
750	The Outsiders	Hinton, S.E.
760	Encounter	Yolen, Jane
760	^ <i>Giver, The</i>	<i>Lowry, Lois</i>
760	*Belle Prater's Boy	White, Ruth
780	^ <i>Greek Myths for Young Children</i>	<i>Amery, Heather</i>
780	*View from Saturday, The	Konigsburg, E.L.

WordSmart Reading Group 2: Vocabulary Levels A6 - A10 (Lexile Range 675 - 850)

<u>Difficulty</u>	<u>Genre & Title</u>	<u>Author</u>
	<small>(by Lexile)</small> <small>Key: ^ = Core Knowledge Title/Topic; ° = Classic; * = Newberry Award Winner</small>	
780	Forged by Fire	Draper, Sharon M
790	The Contender	Lipsyte, Robert
790	Because She's My Friend	Sirof, Harriet
800	^ <i>Summer of My German Soldier</i>	<i>Greene, Bette</i>
800	The Glory Field	Myers, Walter Dean
810	^ <i>Favorite Norse Myths</i>	<i>Osbourne, Mary Pope</i>
810	°Two Towers, The	Tolkien, J.R.R
810	*Bridge to Terabithia	Paterson, Catherine
810	Run Away Home	McKissack, Patricia C.
820	^ <i>Maniac Magee</i>	<i>Spinelli, Jerry</i>
830	Charlie and the Chocolate Factory	Dahl, Roald
830	°Mary Poppins	Travers, P.L.
830	And Then What Happened, Paul Revere?	Fritz, Jean
850	George Washington's Socks	Woodruff, Elvira
850	Let the Circle Be Broken	Taylor, Mildred
860	°Fellowship of the Ring, The	Tolkien, J.R.R
860	°Cry, the Beloved Country	Paton, Alan
860	Turkey Girl, The: A Zuni Cinderella Story	Pollock, Penny
860	My Life With the Wave	Cowan, Catherine
870	^Alice in Wonderland	Carroll, Lewis
870	Drummers of Jericho	Meyer, Carolyn
870	The Hunt For Red October	Clancy, Tom
870	°To Kill A Mockingbird	Lee, Harper
870	House on Mango Street, The	Cisneros, Sandra
870	Silent Boy, The	Lowry, Lois
880	Harry Potter and the Sorcerer's Stone	Rowling, J.K.
880	Silent Thunder: A Civil War Story	Pinkney, Andrea Davis
890	Snowbound: The Tragic Story of the Donner Party	Lavender, David
900	^ <i>Absolutely Normal Chaos</i>	<i>Creech, Sharon</i>
900	I Am Fifteen--and I Don't Want To Die	Arnothy, Christine
910	Dangerous Promise, A	Nixon, Joan Lowery
910	^ <i>Dr. Jekyll and Mr. Hyde</i>	<i>Stevenson, Robert Louis</i>
910	Shiloh	Naylor, Phyllis Reynolds
910	°Phantom of the Opera, The	Leroux, Gaston
910	Gibraltar Passage	Bunn, T. Davis
910	Old Yeller	Gipson, Fred
920	Green Mile, The	King, Stephen
920	Clear and Present Danger	Clancy, Tom
920	°Return of the King, The	Tolkien, J.R.R
920	*Thief, The	Turner, Megan Whalen
	<u>History</u>	
760	Chinese New Year	Chambers, Catherine
790	America's Secret Weapon: The Navajo Code Talkers of World War II	Gutner, Howard
800	On Board the Titanic: What It Was Like When the Great Liner Sank	Tanaka, Shelley
810	Chibi: A True Story From Japan	Brenner, Barbara and Julia Takaya
820	Attack on Pearl Harbor	Tanaka, Shelley
830	Letters Home From Mexico	Gresko, Marcia
850	Ellis Island: Doorway to Freedom	Kroll, Steven
860	If You Lived at the Time of the American Revolution	Moore, Kay
860	Statue of Liberty, The	Strazzabosco-Hayn, Gina
890	Ten Mile Day and the Building of the Transcontinental Railroad	Fraser, Mary Ann
910	Ashanti to Zulu: African Traditions	Musgrove, Margaret
680	Bosnia: Civil War in Europe	Greenberg, Keith Elliot

Difficulty

Genre & Title

Author

(by Lexile)

Key: ^ = Core Knowledge Title/Topic; ° = Classic; * = Newberry Award Winner

WordSmart Reading Group 2: Vocabulary Levels A6 - A10 (Lexile Range 675 - 850)

Nature/Science

680	Scientists Who Study Plants	Higginson, Mel
750	Bottlenose Dolphin	Prevost, John F.
750	Antartic Adventure: Exploring the Frozen South	Hooper, Meredith
770	Blast Zone: The Eruption and Recovery of Mount St. Helens	Stienecker, David
810	Air Pollution	Stille, Darlene R.
810	Toad Overload: A True Tale of Nature Knocked off Balance in Australia	Seibert, Patricia
810	Hurricane Andrew: Nature's Rage	Sherrow, Victoria
850	1000 Facts about the Earth	Butterfield, Moira
850	Amphibians	Stone, Lynn
850	Black Holes	Sipiera, Paul P.

Poetry

820	^ <i>Tales from Homer: Stories from the Iliad and the Odyssey</i>	Bergez, John
NP	Langston Hughes: Young Black Poet	Dunham, Montrew
NP	Knock at a Star: A Child's Introduction to Poetry	Kennedy, X. J. and Dorothy
NP	Old Elm Speaks: Tree Poems	George, Kristine O'Connell
NP	Great Frog Race and Other Poems, The	George, Kristine O'Connell
NP	Honey, I Love and Other Love Poems	Greenfield, Eloise
NP	If I Were in Charge of the World and Other Worries: Poems for Children and Their Parents	Viorst, Judith
NP	Quotations for Kids	Senn, J. A. (compiler)
NP	Where the Sidewalk Ends: The Poems and Drawings of Shel Silverstein	Silverstein, Shel
NP	Grassroots: Poems by Carl Sandburg	Sandburg, Carl

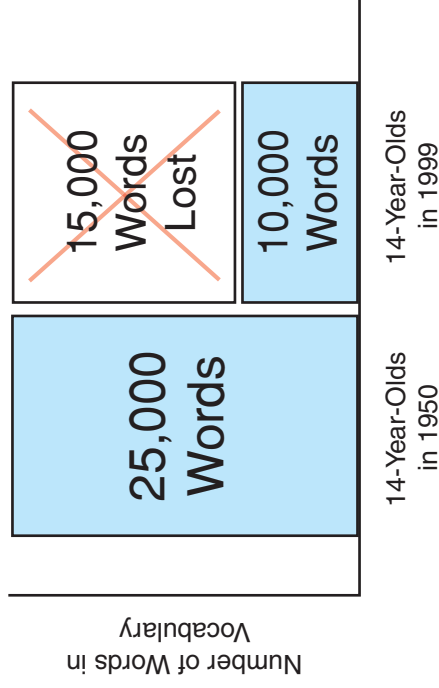
Sports

680	Bases Loaded: Great Baseball of the 20th Century	Cebulash, Mel
700	Getting Physical: The Science of Sports	Parks, Deborah A.
730	In the Year of the Boar and Jackie Robinson	Lord, Bette Bao
740	Baseball's Best: Five True Stories	Wallace, Rich
740	Shots on Goal	Wallace, Rich
750	Top 10 American Women's Figure Skaters	Poynter, Margaret
790	Cal Ripken, Jr.: My Story	Ripken, Cal and Mike Bryan
800	Play Like a Girl: A Celebration of Women in Sports	Macy, Sue and Jane Gottesman
820	Bobsledding and the Luge	Brimner, Larry Dane
830	Careers Inside the World of Sports and Entertainment	McGlothlin, Bruce

4. Research on Vocabulary & Reading

- **Vocabulary, The “Missing Link” in Reading Education**

1.) The Language Gap -- 15,000 Words Lost Since 1950



--Source: Gallup Poll, 1999

With the influence of television, video games, and the Internet -- and the 'death of reading' -- student's perceptive vocabularies are shrinking.

3.) The WordSmart Solution - We Help Teachers "Close the Gap"

- Teachers working with today's students are laboring under a *hidden handicap* — American vocabularies are small and getting smaller, degrading performance in reading and all academic subjects

- WordSmart Has the tools to Help Your School Close the Language Gap...

- A.) 20,000 key vocabulary words
- B.) 5 modes of learning (multi-sensory approach)
- C.) Visual progress-tracking & motivation system so students actually complete the work!
- D.) Methodology based on 70 years of research with a million subjects at the Johnson O'Connor Foundation.

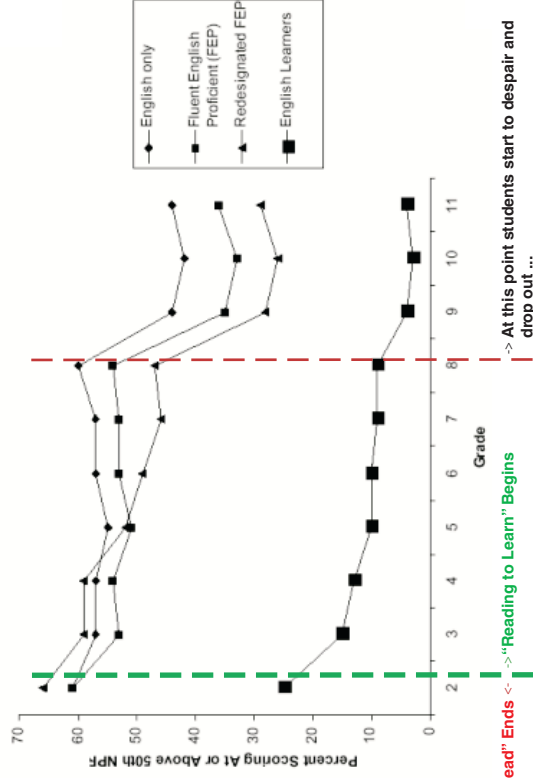
- Give your teachers the tools they need!

WORDSMART

To learn more, send email to:
Learn@WordSmart.com

2.) The Reading Comprehension Gap -- After 2nd Grade ...

2000 California SAT-9 Reading Test Scores by Grade level and Language Background



"Learning to Read" Ends <- -> "Reading to Learn" Begins

When a child's vocabulary doesn't "grow with the books," reading comprehension begins to fall below grade level.

Teaching Vocabulary Early, direct, and sequential

by Andrew Biemiller

"What is missing for many children who master phonics but don't comprehend well is vocabulary, the words they need to know in order to understand what they're reading. Thus vocabulary is the "missing link" in reading/language instruction in our school system.

"Because vocabulary deficits particularly affect less advantaged and second-language children, I will be arguing that such "deficits" are fundamentally more remediable than many other school learning problems." --from pg. 2

During the past 10 years, Jeanne Chall [see [tribute](#), in this issue] encouraged me to focus on the study of vocabulary and how vocabulary growth might be encouraged. Both of us had come to the conclusion that vocabulary growth was inadequately addressed in current educational curricula, especially in the elementary and preschool years and that more teacher-centered and planned curricula were needed, just as had been the case with phonics. Jeanne had come to this conclusion through her work on the stages of reading development (Chall, 1983/1996), her work on textbook difficulty (Chall and Conard, 1991), and especially through the findings of her joint research project with Catherine Snow on families and literacy (Chall, Snow, et al., 1982), as summarized in *The Reading Crisis* (Chall, Jacobs, and Baldwin, 1990). In this book, Chall and her colleagues traced the relative decline in reading achievements experienced by working-class children who had become competent readers by third grade but whose vocabulary limitations increasingly had a negative effect on their reading comprehension as they advanced to seventh grade. (Jeanne mentioned to me several times her disappointment that *The Reading Crisis* was not more widely discussed.)

I had been particularly influenced by Wesley Becker's famous *Harvard Educational Review* article (1977) noting that the impact of early DISTAR success with decoding was muted for reading comprehension in later elementary grades by vocabulary limitations. Becker argued that this was a matter of experience rather than general intelligence by observing that while his DISTAR students' reading comprehension fell relative to more advantaged students by grade 4, their mathematics performance remained high. He suggested that the difference was that all the knowledge that is needed for math achievement is taught in school, whereas the **vocabulary growth needed for successful reading comprehension is essentially left to the home.**

Disadvantaged homes provide little support for vocabulary growth, as recently documented by Hart and Risley (1995). I was further influenced by the finding of my doctoral student, Maria Cantalini (1987), that school instruction in kindergarten and grade 1 apparently had no impact on vocabulary development as assessed by the Peabody vocabulary test. Morrison, Williams, and Massetti (1998) have since replicated this finding. This finding is particularly significant in view of Cunningham and Stanovich's (1997) recently reported finding that vocabulary as assessed in grade 1 predicts more than 30 percent of grade 11 reading comprehension, much more than reading mechanics as assessed in grade 1 do. Finally, I have been influenced by the consistent finding in the oral reading miscue literature that when overall error rates reach 5 percent of running words (tokens), that "contextual" errors (those that make sense in context) virtually disappear. I infer from this that when readers (or listeners?) understand less than 95 percent of the words in a text, they are likely to lose the meaning of that text (and be especially unlikely to infer meanings of unfamiliar words).

In short, as Gough and Tunmer (1986) have pointed out, vocabulary development is both important and ignored. Can we--educators--do better, or are we simply bumping into constitutional limitations that are beyond the power of schools to affect? In the remainder of this article, I am going to summarize a few points that support the argument for an increased emphasis on vocabulary and suggest the need for a more teacher-centered and curriculum-structured approach to ensure adequate vocabulary development.

The consequences of an increased emphasis on phonics. In recent years, we have seen a tremendous emphasis on the importance of phonics instruction to ensure educational progress. We also have seen that while more children learn to "read" with increased phonics instruction,

there have not been commensurate gains in reading comprehension (e.g., Gregory, Earl, and O'Donoghue, 1993; Madden et al., 1993; Pinnell et al., 1994). What is missing for many children who master phonics but don't comprehend well is vocabulary, the words they need to know in order to understand what they're reading. Thus **vocabulary is the "missing link"** in reading/language instruction in our school system. Because vocabulary deficits particularly affect less advantaged and second-language children, I will be arguing that such "deficits" are fundamentally more remediable than many other school learning problems.

Schools now do little to promote vocabulary development, particularly in the critical years before grade 3. The role of schooling in vocabulary acquisition has been the subject of much debate. Early (pre-literacy) differences in vocabulary growth are associated with social class (Duncan, Brooks-Gunn, and Klebanov, 1994; Hart and Risley, 1995; McLloyd, 1998). Nagy and Herman (1987) and Sternberg (1987) argue that much vocabulary acquisition results from literacy and wide reading rather than from direct instruction. However, it is obvious that a great deal of vocabulary acquisition occurs before children become literate, and before they are reading books that introduce unfamiliar vocabulary (Becker, 1977). Cantalini (1987) and Morrison, Williams, and Massetti (1998) both report that vocabulary acquisition in kindergarten and grade 1 is little influenced by school experience, based on finding that young first-graders have about the same vocabulary (Peabody Picture Vocabulary Test) as older kindergarten children. Cantalini reported the same result for second grade.

The relatively small number of words that need to be learned. It is sometimes argued that the number of words children need to learn is so great that this can only happen incidentally through wide reading (Anderson, 1996; Nagy and Herman, 1987; Sternberg, 1987). This argument is quite reminiscent of the argument that the spelling-to-sound structure of English is so difficult that it can't be taught but only learned through experience. In both cases, the complexity of what needs to be learned has been somewhat exaggerated. Many years ago, Lorge and Chall (1963) argued that traditional dictionary sampling methods for assessing vocabulary had greatly overestimated the volume of vocabulary children needed to acquire. As Lorge and Chall, Beck and McKeown (1990), and others have noted, we need to focus on root word growth rather than the acquisition of all inflected and derived forms of words. Jeremy Anglin's (1993) monograph suggests that **children acquire about 1,200 root words a year** during the elementary years with perhaps half that many root words learned per year prior to grade 1. (He also argues that **perhaps twice that many words need to be learned**, particularly including idiomatic forms.) My own research (Biemiller and Slonim, in press) suggests that the average number of root word meanings acquired per year may be somewhat smaller, more like 600 root word meanings a year from infancy to the end of elementary school. This conclusion, based on root word meanings sampled from Dale and O'Rourke's Living Word Vocabulary (1981), is partly based on the observation that many similar meanings are acquired at about the same age and probably do not require separate instruction.

Evidence that vocabulary differences present by grade 2 may account for most vocabulary differences in elementary school. There has been relatively little discussion or examination of individual differences in vocabulary growth. Hart and Risley (1995) observed large differences associated with word learning opportunities in the preschool years. In our current research, Naomi Slonim and I are finding that **large vocabulary differences are present by the end of grade 2--amounting to more than 3,000 root words** between high and low quartiles in a normative population (Biemiller and Slonim, in press). After grade 2, cross-sectional data indicate that the lowest-quartile children may actually add root word vocabulary faster than the higher-quartile children. However, by grade 5, they have only reached the median for grade 2 children. Thus, if we could find ways of supporting more rapid vocabulary growth in the early years, more children would be able to comprehend "grade level" texts in the upper elementary grades. (Note that the "reading grade level" of texts is in fact almost entirely determined by the vocabulary load of those texts (Chall and Conard, 1991; Chall and Dale, 1995). Thus early vocabulary limitations make "catching up" difficult even though once in school, children appear to acquire new vocabulary at

similar rates. To "catch up," vocabulary-disadvantaged children have to acquire vocabulary at above-average rates.

The sequential nature of vocabulary acquisition. Much evidence clearly indicates that vocabulary is acquired in largely the same order by most children. The existence of empirical vocabulary norms (as in the Peabody and Living Word Vocabulary) indicate that some words are acquired later than others. Slonim and I have found very high correlations (mostly over .90) between mean scores for words obtained from different grades (Biemiller and Slonim, in press). We also found that when data is ordered by children's vocabulary levels rather than their grade level, we can clearly identify a range of words known well (above 75 percent), words being acquired (74 percent-25 percent) and those little known. Furthermore, these ranges are sequential. At any given point in vocabulary acquisition, a preliminary conclusion from this work is that there are about 2,000-3,000 root words that a child is likely to be learning. This makes the construction of a "vocabulary curriculum" plausible.

Defining an essential vocabulary for high school graduates. A corollary of the sequential nature of vocabulary acquisition is the possibility of defining a common vocabulary needed by most high school graduates. Several studies have shown that college entrants need 11,000 to 14,000 root words, while college graduates typically have about 17,000 root words (D'Anna, Zechmeister, and Hall 1991; Goulden, Nation, and Read, 1990; Hazenberg and Hulstijn, 1996). We need further research on the degree to which we can identify these words. (It is clear that all do not know the same exact words. It is equally clear that there is a substantial common vocabulary plus a further more discipline-specific vocabulary.)

The hypothesis that most root word and idiomatic vocabulary learned before and during elementary school results from direct explanation of words. We know relatively little about the processes by which children add words to their vocabularies. Some of the data are negative--evidence that children do not easily acquire words by inference, especially children younger than age 10 (Robbins and Ehri, 1994; Werner and Kaplan, 1952). In Bus, Van Ijzendoorn, and Pellegrini's (1995) summary of the effects of reading to children, there is evidence that younger children profit less from simply being "read to." There is also positive evidence that children do readily acquire vocabulary when provided with a little explanation as novel words are encountered in context (Beck, Perfetti, and McKeown, 1982; Elley, 1989; Feitelson et al., 1986; Feitelson et al., 1991; Whitehurst et al., 1998). Preliminary evidence from directly interviewing children about word acquisition suggests that as late as grade 5, about 80 percent of words are learned as a result of direct explanation, either as a result of the child's request or instruction, usually by a teacher (Biemiller, 1999b). Overall, I believe that before age 10, the evidence supports the conclusion that a substantial majority of new root words are acquired through explanation by others (including explanations in texts) rather than by inference while reading, as has often been argued by Anderson, Nagy and Herman, and by Sternberg. For practical purposes, we should be prepared to ensure the availability and use of explanations of word meanings throughout at least the elementary school years.

Although children differ in their opportunities to learn words and the ease with which they learn words, evidence suggests that most can learn vocabulary at normal rates. There is clear evidence that vocabulary is associated with socioeconomic status--presumably reflecting differences in opportunity (as documented by Hart and Risley, 1995; and Snow, Burns, and Griffin, 1998). There is also clear evidence relating vocabulary development to various phonological skills or capacities (e.g., Gathercole et al., 1997). It is likely that environment and "capacity" interact--that constitutionally more-advantaged children also may be environmentally more advantaged. However, a number of studies summarized in Biemiller (1999a), Stahl (1999), and elsewhere clearly indicate that children can acquire and retain two or three words a day through instruction involving contextualized introduction and explanation of new words. Furthermore, while less verbally fluent or lower vocabulary children and adolescents have been found to benefit little from inferring word meanings (Cain and Oakhill, in preparation; Elshout-

Mohr and van Daalen-Kapteijns, 1987), more-direct approaches have been reported to work well with these children (see Elley, Feitelson, and Whitehurst references cited previously). Overall, I hypothesize that most children (90 percent plus) can acquire new vocabulary at rates necessary to reach "grade level" or near grade level vocabulary in middle elementary school, if given adequate opportunity to use new words and adequate instruction in word meanings.

The need for planned introduction and explanation of vocabulary plus various tools to help children become more independent in dealing with new vocabulary. I have suggested above the hypothesis that 80 percent or more of the root words learned by grade 6 are learned as a result of direct explanation by parents, peers, teachers, and texts. Those who learn more words almost undoubtedly encounter more words and receive more explanations of word meanings. This suggests that we could do considerably more than we now do to ensure the development of adequate vocabulary through systematic exposure to two to three new words a day combined with adequate explanation of these words and opportunities to use them. (I am referring to new meanings not simply words that are unfamiliar in print.) Present school practices fall far short of this objective in the primary grades. (Schools may do better in the upper elementary grades.) Other types of vocabulary instruction (e.g., using affixes, word family approaches, and direct instruction in inferencing) will also be useful, especially in grades 3 and above.

This particular objective raises the possibility of returning to a more basal approach, at least as one component of classroom language and reading instruction. If vocabulary acquisition is largely sequential in nature, it would appear possible to identify that sequence and to ensure that children at a given vocabulary level have an opportunity to encounter words they are likely to be learning next, within a context that uses the majority of the words that they have already learned. Some researchers are already beginning to work on this objective (e.g., David Francis and Barbara Foorman in Texas, Jan Hulstijn in the Netherlands, Margaret McKeown and Isabel Beck in Pittsburgh, William Nagy in Seattle, and John Morgan and myself in Toronto). Many problems need to be solved. Existing lists of words (e.g., Living Word Vocabulary) do not correspond closely enough to observed sequences of word acquisition to be great guides (although they are better than nothing). Word frequency in print data (e.g., Carroll, Davies, and Richmond, 1971) bears relatively little relationship to observed word knowledge. (In my studies, Carroll's SFI index accounted for 7 percent of observed root word knowledge. In contrast, Living Word Vocabulary levels accounted for more than 50 percent of our data.) William Nagy (personal communication) has proposed combining Dale and O'Rourke's data with expert ratings--a very plausible suggestion.

note: WordSmart's list is based on the Johnson O'Connor Foundation's empirical research on what words children know and when they know them

Given the establishment of plausible vocabulary lists, teachers could relate these lists to vocabulary being introduced in books (short stories, novels, texts) being studied, be aware of words to introduce or explain (or to query children about if they don't ask!), and be aware of some important words that aren't going to be covered in the established curriculum. These words could be taught directly, or other materials (e.g., stories to be read to class) could be introduced that include them.

Conclusion: A substantially greater teacher-centered effort is needed to promote vocabulary development, especially in the kindergarten and early primary years. In her last book, *The Academic Achievement Challenge*, Jeanne Chall (2000) presented a summary of research supporting the effectiveness of "teacher centered" approaches to education. The information reviewed here similarly points to the need for more planned (but contextualized) introduction of vocabulary. This is especially true in the pre-reading years (before grades 3 or 4 when children begin to read books that are likely to introduce new vocabulary). Specifically, increased teacher-centered vocabulary work should include the deliberate introduction of a wider range of vocabulary in the early primary years through oral sources (most children are limited in what they can read at this age level), ensuring coverage of about 4,000 root words by the end of grade 2. In the later elementary years, continued development will include adding another 500 to 750 root words per year, additional idioms, and increased fluency in using derived words. In

addition, in the upper elementary grades, instruction is needed in deriving word meanings from affixes, word families, etc., as well as in ways of inferring word meanings. If we are serious about "increasing standards" and bringing a greater proportion of schoolchildren to high levels of academic accomplishment, we cannot continue to leave vocabulary development to parents, chance, and highly motivated reading.

Thus, I strongly recommend a more teacher-directed and curriculum-directed approach to fostering vocabulary and language growth. If education is going to have a serious "compensatory" function, we must do more to promote vocabulary. Our current data show large "environmental" effects in kindergarten to grade 2. Large differences remain by grade 5 (e.g., children in the lowest grade 5 quartile have vocabularies similar to median second-grade children). Is this simply the product of "intelligence"? I believe it is in considerable part the result of different learning opportunities. After grade 2, vocabulary growth rates look similar or faster for "low quartile" children. If we could keep them from being so far behind by grade 2, they apparently wouldn't be so far behind in grade 5!

I don't believe we can make all kids alike. But I think we could do more to give them similar tools to start with. Some kids may have to work harder to add vocabulary. Educators may have to work harder with some kids. So what's new? But now, educators do virtually nothing before grade 3 or 4 to facilitate real vocabulary growth. By then, it's too late for many children.

Andrew Biemiller is professor, Institute of Child Study, Department of Human Development and Applied Psychology, University of Toronto, Ontario. His latest book is *Language and Reading Success* (Brookline Books, Cambridge, Mass.) This article is reprinted with permission from the International Dyslexia Association quarterly newsletter, *Perspectives*, Fall 2000, Vol. 26, No. 4.

Note: * WordSmart's Core Learning Lab approach—computers at the service of classroom teachers and the core curriculum— is a more realistic alternative to teacher-centered vocabulary instruction.

A teacher-centered vocabulary program, though it might prevent the language gap from growing if begun system wide at an early enough age, will neither close the vocabulary gap that exists between today's students (a 3000 word difference between high and low 2nd graders!), nor help make up the language deficit due to TV, Nintendo, and the Internet (15,000 words lost to the average 14 year-old since 1950 --Source: Gallup Poll, 1999). We have an emergency in American schools; and workbooks and didactic instruction are just too slow.

Only a computer-aided vocabulary and reading program like WordSmart's "Close the Gap" Reading Pyramid can give students the repetitions, practice in context, and motivation they need to catch up in a hurry— raising reading comprehension scores, while leaving teachers free to teach higher-order language skills: writing, poetry, literature, and so on.

5. Optimizing WordSmart for the Lab

Adjusting Settings- How to Optimize WordSmart for Use in A Classroom or Lab Setting

A. Adjusting Settings

Many WordSmart features (e.g., music/sound settings and word-group promotion thresholds) are optimized for individual or home use. Follow the screenshot instructions to learn how to set the programs settings to get the most out of WordSmart in a computer lab or classroom setting.

Screenshots

Name: _____ Session Begins: _____ Session Ends: _____

(To beat a game you must hit its Target Score) **Which Volume Are You In? (circle one): A, B, C, D, E, F, G, H, I, J**

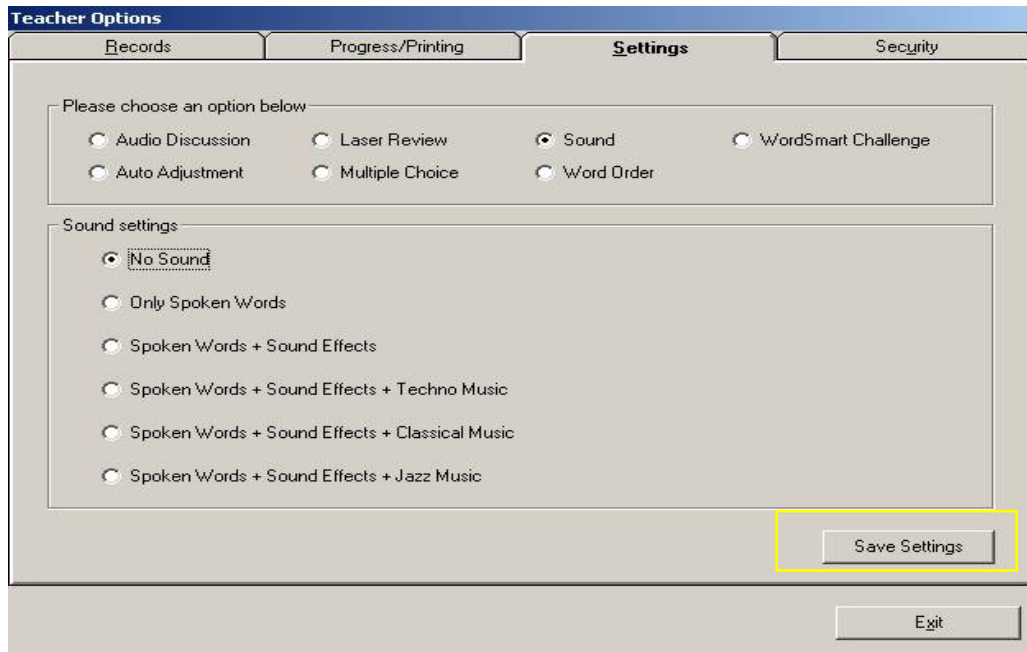
Word Groups ²⁰⁰⁰ Beginning group? (Write one) ²⁰⁰⁰	1 20 words	2 20 words	3 20 words	4 20 words	5 20 words	6 20 words	7 20 words
WORDSMART GAMES <i>Games 1 & 2: Learn & Practice (Learn the Words + Practice for the Game 3 Challenge)</i>							
1.) Multiple Choice Challenge <i>Learn the words</i>	Play until you get $\geq 90\%$ \ggg Fill in This Box \ggg Advance to Game 2! (2 pts)	Play until you get $\geq 80\%$ \ggg Fill in This Box \ggg Advance to Game 2! (2 pts)	Play until you get $\geq 80\%$ \ggg Fill in This Box \ggg Advance to Game 2! (2 pts)	Play until you get $\geq 80\%$ \ggg Fill in This Box \ggg Advance to Game 2! (2 pts)	Play until you get $\geq 80\%$ \ggg Fill in This Box \ggg Advance to Game 2! (2 pts)	Play until you get $\geq 80\%$ \ggg Fill in This Box \ggg Advance to Game 2! (2 pts)	Play until you get $\geq 80\%$ \ggg Fill in This Box \ggg Advance to Game 2! (2 pts)
2.) Column Matching <i>Earn the words</i>	Target Score: Play until you get $\geq 70\%$ \ggg Fill in This Box \ggg Advance to Game 3! (3 pts)	Target Score: Play until you get $\geq 70\%$ \ggg Fill in This Box \ggg Advance to Game 3! (3 pts)	Target Score: Play until you get $\geq 70\%$ \ggg Fill in This Box \ggg Advance to Game 3! (3 pts)	Target Score: Play until you get $\geq 70\%$ \ggg Fill in This Box \ggg Advance to Game 3! (3 pts)	Target Score: Play until you get $\geq 70\%$ \ggg Fill in This Box \ggg Advance to Game 3! (3 pts)	Target Score: Play until you get $\geq 70\%$ \ggg Fill in This Box \ggg Advance to Game 3! (3 pts)	Target Score: Play until you get $\geq 70\%$ \ggg Fill in This Box \ggg Advance to Game 3! (3 pts)
Games 3: Take the Challenge! (Score $\geq 85\%$ and You're Almost Ready to Move Up to the Next Word Group)							
3.) Sentence Completion <i>Get them for Real (Spelling Test)</i>	Target Score: Play until you get $\geq 85\%$ \ggg Fill in This Box \ggg Advance to Next Word Group! (3 pts)	Target Score: Play until you get $\geq 85\%$ \ggg Fill in This Box \ggg Advance to Next Word Group! (3 pts)	Target Score: Play until you get $\geq 85\%$ \ggg Fill in This Box \ggg Advance to Next Word Group! (3 pts)	Target Score: Play until you get $\geq 85\%$ \ggg Fill in This Box \ggg Advance to Next Word Group! (3 pts)	Target Score: Play until you get $\geq 85\%$ \ggg Fill in This Box \ggg Advance to Next Word Group! (3 pts)	Target Score: Play until you get $\geq 85\%$ \ggg Fill in This Box \ggg Advance to Next Word Group! (3 pts)	Target Score: Play until you get $\geq 85\%$ \ggg Fill in This Box \ggg Advance to Next Word Group! (3 pts)
Points Subtotal:							
Letter Game Bonus Points Know your stuff	$\geq 70\%$ (2 pts)	100% (3 pts)	$\geq 70\%$ (2 pts)	100% (3 pts)	$\geq 70\%$ (2 pts)	100% (3 pts)	$\geq 70\%$ (2 pts)
Written Test Bonus! (Pencil & Paper - Wait at least 1 week)	$\geq 80\%$ (3 pts)	100% (4 pts)	$\geq 80\%$ (3 pts)	100% (4 pts)	$\geq 80\%$ (3 pts)	100% (4 pts)	$\geq 80\%$ (3 pts)
Total Points: (Subtotal + Bonus)							

WordSmart Progress Tracker

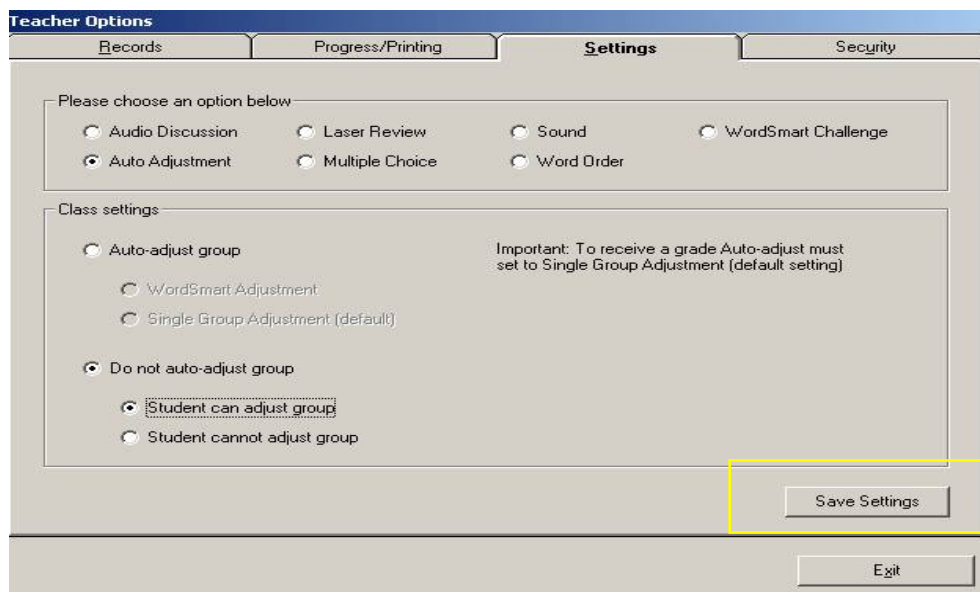
The WordSmart “Target Score” Progress Tracker: A Visual Goal-Setting, Progress Tracking, and Motivation Tool. Give students the goals on day one and they will take responsibility for their own success.

Progress Trackers help you get the most out of computer learning time, leading to concentration, completion, and independent learning in the lab. To use the Trackers you must adjust the following settings: ➔

1. Sound Effects and Music can be a distraction to students in lab settings—even with headphones. Avoid this obstacle, **choose “Only Spoken Words”**



2a. The Progress Trackers takes students through a carefully thought out progression (see “Notes on the ‘Target Score’ Progress Trackers”), encouraging many repetitions and multiple modes of learning. To use the Progress Trackers, **“Auto-Adjustment” must be off.**



2b. As students hit all Target Scores for a Word Group column, they manually adjust the program to advance to the next column. **“Students can adjust group” should be on.**

3. While earning points in the asteroid “Laser Game Bonus,” students should not be distracted by a bewildering array of choices (how fast do the asteroids move? away from you or toward you? etc!) **“Load Laser Review option screen upon running Laser Review” should be off.**

Teacher Options

Records Progress/Printing **Settings** Security

Please choose an option below

Audio Discussion Laser Review Sound WordSmart Challenge
 Auto Adjustment Multiple Choice Word Order

Laser Review settings

Load Laser Review option screen upon running Laser Review

Save Settings

Exit

The *Audio Discussion* tab lets you specify whether you want the audio discussion from the *Multiple Choice Study Exercise* to play automatically when students select their word.

Teacher Options

Records Progress/Printing **Settings** Security

Please choose an option below

Audio Discussion Laser Review Sound WordSmart Challenge
 Auto Adjustment Multiple Choice Word Order

Audio Discussion settings

Automatically run Audio Discussion from Multiple Choice

If you disable this feature, the Audio Discussion will only run if the student makes an incorrect response for a given question in Multiple Choice.

Allow students to change above setting

Save Settings

Exit

**Notes on WordSmart
Sample WordSmart Tracker**

**Notes on Progressive Reader
Sample Reader Tracker**

**Notes on Reading List
Sample “Progress Pie”**

**Research on Vocabulary
and Reading**

**Optimizing WordSmart
for the Lab**

Title Page – Insert this sheet into title page holder back of binder