

Today's Presenter

Dr. Robert J. Marzano



Cofounder and CEO of Marzano Research Laboratory in Englewood, Colorado
Leading researcher in education, speaker, trainer, and author of more than 30 books and 150 articles

Topics include:

- Instruction
- Assessment
- Writing and implementing standards
- Cognition
- Effective leadership

Books include:

- Designing & Teaching Learning Goals & Objectives*
- District Leadership That Works*
- Formative Assessment & Standards-Based Grading*
- On Excellence in Teaching*
- The Art and Science of Teaching*
- Vocabulary Games for the Classroom*
- NEW!** *The Highly Engaged Classroom*



About MRL

Marzano Research Laboratory (MRL) is a joint venture between Solution Tree and Dr. Robert J. Marzano. In service to educators, the company synthesizes Dr. Marzano's scope of educational research, world-renowned for its breadth and depth, into accessible components teachers and principals can use for concrete gains in student learning.



Mission and Goal

Our Mission

To provide the best research, the most useful actions, and the highest level of services to educators.

Our Vision

To continuously develop tools that translate high-quality educational research into practical applications educators can put to use.

Our Goal

To be the place educators go for the latest information and data, synthesized into clear, concise resources that facilitate action.



Leading the Implementation of a Schoolwide Vocabulary Program



The vocabulary wars are over.



Early concerns about direct vocabulary instruction

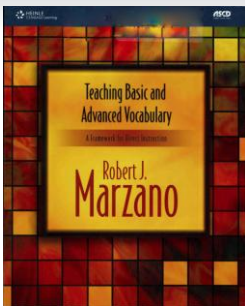


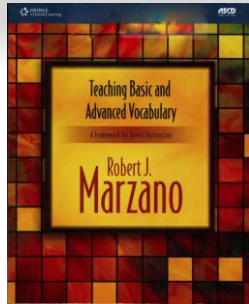
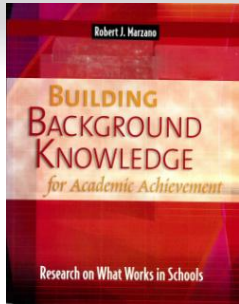
Nagy and Anderson's analysis of 88,500 terms in grades 3–9 textbooks

# Words	Frequency	Tier
6,700 (7.57%)	1 time or more in 1 year of reading	Tiers I and II
8,650 (9.77%)	Up to 3 times in 10 years	Tier II
6,350 (7.18%)	Up to 3 times in 100 years	Tier III
24,600 (27.80%)	1 time in 100 years	Tier III
42,200 (47.68%)	Up to 3 times 10,000 or more years	Tier III

Tiers I and II Defined

Category	Basic Index	# of Terms	Totals
Basic	1	222	
(Tier I)	2	993	
	3	1,630	2,845
Advanced	4	3,638	
(Tier II)	5	1,524	5,162
Total			8,007



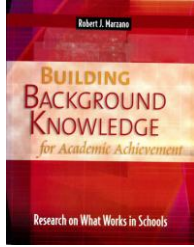


We now know the playing field.

Category	# of Words
Basic (General Vocab)	2,845
Advanced (General Vocab)	5,162
Academic (All Subjects)	7,923
Total	15,930 (15,000 without repeats)

There is no longer an excuse for any student to leave school lacking a general knowledge of the basic general terms, the advanced general terms, and the academic terms necessary for success in US society.

Let's start with academic vocabulary.





Vocabulary Terms and Phrases

Classroom Practice

1. Identify critical terms and phrases
2. Use a research-based process for teaching new terms and phrases



3rd Grade Mathematics

angle	octagon
area	parallel
average	perimeter
bar graph	product
congruent	rhombus
difference	square
estimation	symmetry
hexagon	triangle
length	vertical
width	horizontal

3rd Grade Science

predict	pitch
compare	food web
observe	life cycle
investigate	living organism
analyze	structure
amplify	inherit
frequency	reproduction
vibration	environment
Newton	characteristics
properties	hypothesis

3rd Language Arts

actor	ending
animation	facial expression
audience	humor
cause and effect	minor character
commercial	main character
conclusion	plot development
cue	role playing
detail	central idea
directions	mood
drama	myth

3rd Social Studies

prairie	Native American
Oregon Trail	legacy
lariat	stampede
oxen	fertile
expedition	wagon trails
territory	cabin
homestead	cattle
settlement	seasonal dwelling
pioneer	plateau
farm/ranch	frontier

A Six-Step Process for Teaching New Terms

- Step 1: Provide a description, explanation, or example of the new term.*
- Step 2: Ask students to restate the description, explanation, or example in their own words.*
- Step 3: Ask students to construct a picture, symbol, or graphic representing the term or phrase.*

- Step 4: Engage students periodically in activities that help them add to their knowledge of the terms in their notebooks.*
- Step 5: Periodically ask students to discuss the terms with one another.*
- Step 6: Involve students periodically in games that allow them to play with terms.*

Mutualism

The interaction of organisms within an ecosystem in a manner that significantly benefits both, although the resulting relationship is not critical to the continued existence of either




Category: (standard, unit, alphabetical)	
Term, phrase	
Description:	Picture/graphic
Related terms, phrases	

Word or words: <i>Mutualism</i>	Picture
Category:	
What it means: <i>It means one thing helps a nother thing.</i>	
Other words I think of:	
Word or words:	

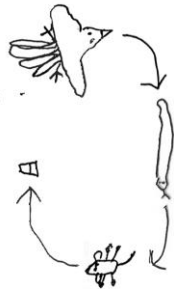
Word or words: <i>Mutualism</i>	Picture
Category:	
What it means:	
Other words I think of:	
Word or words:	

Word or words: <i>Mutualism</i>	Picture
Category:	
What it means: <i>It's something that gets something from egiotter.</i>	
Other words I think of:	
Word or words:	

Word or words: Mutualism	Picture 
Category: Relationship in nature	
What it means: 2 things that do something for one another.	
Other words I think of: Symbiosis	
Word or words:	Picture

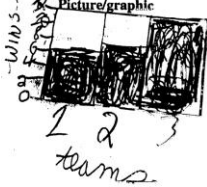
Grade 3-5

Standard: The student understands and applies the concepts of life science.

Term: Food chain	Description: It's like when a bird eats a snake, a snake eats a mouse, and a mouse eats corn.	Picture/graphic: 
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Grade 3-5

Standard: The student understands and uses the concepts of probability and statistics.

Term: Bar graph	Description: Organism your data	Picture/graphic: 
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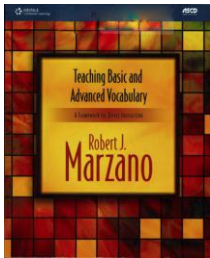
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Step 4: Engage students periodically in activities that help them add to their knowledge of the terms in their notebooks.

Step 5: Periodically ask students to discuss the terms with one another.

Step 6: Involve students periodically in games that allow them to play with terms.

Basic Vocabulary



Basic Vocabulary

Category	# of Words
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Cluster 10: Cause/Effect Relationship Markers

- ▶ because, by, for
- ▶ from, if, since
- ▶ so, then, to, because of
- ▶ if only, if...then

Many clusters among the first 30 are syntactic in nature and don't lend themselves to typical vocabulary instruction strategies.



Cluster 102: Bodies of Water

- ▶ lake, ocean, puddle
- ▶ river, sea, stream
- ▶ bay, creek, pond
- ▶ brook, cove, current
- ▶ delta, gulf, inlet
- ▶ marsh, outlet, rapids
- ▶ strait, surf, swamp
- ▶ tide, eddy, estuary
- ▶ tributary, fjord, geyser
- ▶ headwaters, lagoon

Cluster 243: Lack of Value

- ▶ bad, awful, evil
- ▶ terrible, wicked
- ▶ worse, worst
- ▶ absurd, corrupt, foul
- ▶ grim, horrible, inferior, negative

Placing students on the continuum of clusters: The SNAPSHOT Assessment



Cluster	Test Words
1a 1b	can will
21a 21b	forward backward
50a 50b	moon planet
128a 128b	train motorcycle

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A Six-Step Process for Teaching New Terms

- Step 1: Provide a description, explanation, or example of the new term.*
- Step 2: Ask students to restate the description, explanation, or example in their own words.*
- Step 3: Ask students to construct a picture, symbol, or graphic representing the term or phrase.*

- Step 4: Engage students periodically in **COMPARISON ACTIVITIES** activities that help them add to their knowledge of the terms in their notebooks.*
- Step 5: Periodically ask students to discuss the terms with one another.*
- Step 6: Involve students periodically in games that allow them to play with terms.*

Comparing

Identifying and describing similarities and differences among items



A and **B** are similar because they both:

_____.

A and **B** are different because:

A is _____, but B is _____.

A is _____, but B is _____.

A is _____, but B is _____.

Cluster 243: Lack of Value

- ▶ bad, awful, evil
 - ▶ terrible, wicked
 - ▶ worse, worst
- ▶ absurd, corrupt, foul
 - ▶ grim, horrible, inferior, negative

Bad and **Evil** are similar because they both:

_____.

Bad and **Evil** are different because:

Bad is ____, but **Evil** is _____.

Bad is ____, but **Evil** is _____.

Bad is ____, but **Evil** is _____.

A Win and a **Victory** are similar because they both:

_____.

A Win and a **Victory** are different because:

Win is ____, but **Victory** is _____.

Win is ____,but **Victory** is _____.

Win is ____,but **Victory** is _____.

Fractions and **Decimals** are similar because they both:

_____.

Fractions and **Decimals** are different because:

Fractions ____, but **Decimals** ____.

Fractions ____, but **Decimals** ____.

Fractions ____, but **Decimals** ____.

A Monarchy and a **Dictatorship** are similar because they both:

_____.

A Monarchy and a **Dictatorship** are different because:

A **Monarchy** ____, but a **Dictatorship** _____.

A **Monarchy** ____, but a **Dictatorship** _____.

A **Monarchy** ____, but a **Dictatorship** _____.

	Item 1	Item 2	Item 3	
Characteristic 1				Similarities and/or Differences
Characteristic 2				Similarities and/or Differences
Characteristic 3				Similarities and/or Differences
Characteristic 4				Similarities and/or Differences

Cluster 102: Bodies of Water

- ▶ lake, ocean, puddle
- ▶ river, sea, stream
- ▶ bay, creek, pond
- ▶ brook, cove, current
- ▶ delta, gulf, inlet
- ▶ marsh, outlet, rapids
- ▶ strait, surf, swamp
- ▶ tide, eddy, estuary
- ▶ tributary, fjord, geyser
- ▶ headwaters, lagoon

	lake (basic)	ocean (basic)	cove (advanced)	
Size				Similarities and/or Differences
Type of water				Similarities and/or Differences
Things that happen there				Similarities and/or Differences
Characteristic 4				Similarities and/or Differences

Super Cluster 10: Animals

32	Birds
35	Baby Animals
64	Cats/Dogs
70	Land Animals (General)
82	Sea Animals
95	Insects
117	Actions Related to Animals
155	Part of Animals
188	Rodents
189	Dwellings of Animals
194	Animals (General)
309	Shellfish
310	Equipment Used with Animals
341	Primates

Rank	Super Cluster	Basic	Advanced	Total
1	Auxiliary and Helping Verbs	29	6	35
2	Pronouns	48	15	63
3	Cause and Effect	17	44	61
4	Physical Locations and Orientation	98	92	190
5	Measurement, Size, and Quantity	139	156	295
6	Time	126	130	256
7	Comparison and Contrast	35	85	120
8	Color	17	35	52
9	Verbal Interaction	97	213	310

A Reasonable Solution

- A district list of vocabulary terms in math, science, social studies and language arts is considered mandatory for grades K–8 or 1-8.
- General advanced terms are taught as a regular part of classroom instruction as they are needed.
- Students who require instruction in basic terms are provided with extra instruction (e.g., after school or grouped for special instruction during the day).



Thank You!

A recording and slide handouts from today's webinar will be available in the next five business days. These will be accessible at MarzanoResearch.com. You will receive an email with this link.