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Each series in 2024-25 is curated by a Vermont expert on the subject, with editing support from Dorinne Dorfman, Ed. S., Ed. D., and The Reading League Vermont. If you are interested in writing an article, please contact Dr. Dorfman at dorinnedorfman@gmail.com.

The three-part series features:

1. **Phonemic awareness** in September 2024 - January 2025, with lead editor Cara Arduengo, MS, CCC-SLP, M. Ed.
2. **Phoneme-grapheme mapping** in February - April 2025, with lead editor Kathryn Grace, M. Ed, CAGS
3. **Orthography and morphology** in April - June 2025, with lead editor Peggy Price, M. Ed., Fellow/OGA

During the 2025-26 school year, we will continue with the themes of **fluency, vocabulary, and comprehension.**
We look forward to sharing the teaching expertise of your colleagues across Vermont and moving toward the goal of reading equity!

> **Curious Question:** What are some common **nonreversible** word pairs to teach?

Syllables and Their Place in Word Study
by Bruce Rosow, Ed.D.

While most phonics programs teach syllables and syllable types, there is debate about whether and/or how to use syllable study to teach decoding and spelling. In this article I define the term syllable, propose reasons to teach syllables, and explore basic concepts in how to teach syllables including syllable accent.

> Before you read this, take a minute with a colleague and, as simply as possible, explain why we teach syllables.

It is important to explore whether, and how, to teach syllables, as this traditional practice is being challenged by credible researchers. Critics argue that we should not teach syllables at all or that some educators are over-teaching syllables. Arguments against teaching syllables include their unpredictability in our orthography (Kearns, 2020), that instruction in syllable spellings originates from a print-to-speech framework rather than a preferable speech-to-print framework, and that syllabic analysis produces cognitive overload, making it too hard for struggling readers to use and taking attentional resources away from comprehension.

To address the questions of whether or how to teach syllables, we need to first define what a syllable is. In my case, after about a dozen years as an intermediate grade classroom teacher, I could not define syllables and had no answer for why we should teach them. Syllables were included in the workbook we used for spelling so I blindly followed the curriculum. I, myself, was a terrible speller from my youth into my 40s and syllables were not my friends.

About then, in my mid-40s, I started studying with Dr. Louisa Moats. I learned that the structure of English is like a "language layer-cake." Louisa meant, in the case of syllables, that we should distinguish between syllables at the oral (phonological) level and syllable patterns in the print (orthographic) layers, and we should also distinguish syllables from morphemes. I learned how each of these layers of language, phonology, orthography and morphology, operate with rules and patterns that jive with the others and rules and patterns that do not. I also learned how to spell a lot better and to teach spelling with the blinders off.

Syllables in Spoken Language

At the layer of phonology, syllables exist as a pulse of speech organized around a vowel sound.

Every syllable must have a vowel phoneme just as a burger must have a hamburger. A syllable cannot be made of consonants any more than a burger can be made of only the bun. The number of vowel phonemes = the number of syllables. The vowel phoneme, called the syllable peak or nucleus, is the meat of the matter. The ability to identify and distinguish vowel phonemes is the critical skill for syllable study.

You may be asking, what about consonant-le syllables (-cle) like the second syllable in *sim-ple*? Certain consonant phonemes have a semi-vowel quality that allows them to act as the peak or nucleus of the syllable, substituting for the vowel. These include nasals in the second syllable in *rhy-thm* and *but-ton,* and the liquids /r/ in *but-ter*, and /l/ in *sim-ple* and *lit-tle* (Moats, 2020). These nasal and liquid semi-vowel consonants cause all kinds of spelling mayhem because they blend into, and can alter, the phonemes that surround them and they are hard to isolate in the speech stream.

Vowel Phoneme Identity

Vowel identification is at the heart of syllable study.

Critical skills include distinguishing short (lax) vowels from long (tense) vowels, identifying vowels that are neither short nor long such as /ŏŏ/ **book** and /aw/ **saw**, distinguishing vowels that are similar in production such as /ĕ/-/ĭ/ or /ŏ/-/aw/, and becoming familiar with variant sounds for schwa (/ĭ/ or /ŭ/). Students benefit from ongoing review into the intermediate grades to ensure they have mastered vowel identity. This includes practicing vowel substitution, as modeled in the long and short of it exercise below. Vowel substitution teaches students learn to "flex" vowels as they will need to do in decoding polysyllable words.

The Vowel Valley Chart (Moats & Rosow, 2024) is a map to help navigate vowel phoneme identification. Consonant phonemes are easier to identify because we speak them with the air blocked or obstructed by tongue, teeth, or lips. Vowels, in contrast, are open sounds in which the air is shaped rather than blocked or obstructed. There are fewer kinesthetic or articulatory cues to aid their identification. If students are provided phonemic awareness instruction, most can learn to accurately identify and manipulate vowel sounds.

Below are a few activities to work on vowel phoneme identity. We include these activities in Books A and B of *Spellography* intended for third grade through intermediate grade-level use.

(1) The Vowel Valley: Put each vowel sound and keyword on a separate card or piece of paper. Place the vowel sounds and their words where they belong in the vowel valley chart below. Feel what your lips, tongue, and jaw are doing as you say the sounds.

/ă/ = <u>apple</u>   /ĕ/ = <u>edge</u>   /ĭ/ = <u>itch</u>   /ŏ/ = <u>octopus</u>   /ŭ/ = <u>up</u>   /aw/ = saw   /ŏŏ/ = book
/ā/ = apron   /ē/ = eagle   /ī/ = ice   /ō/ = open   /ū/ = moon   /yū/ = unicorn

Vowels by Order of Articulation

Front / High   Back / High
    /ē/
        /ĭ/   [ə] (schwa)   /ū/ , /yū/
Smile   /ā/   /ŏŏ/
            /ĕ/   /ō/   Round
        /ă/   /aw/
            /ĭ/   /ŭ/
                /ŏ/
        Middle / Low
        Open

- Work with a partner with your Vowel Valley Chart.
- Silently point to a vowel on the chart. Have your partner say the keyword and the vowel sound by itself.

> This chart is simplified to feature neighboring vowels based on what your lips, tongue, and jaw are doing. The full vowel chart also includes vowels placed outside the valley:
>
> Diphthong vowels with glide features:
>
> /oi/ (boy) as /aw/ + the glide /y/;
>
> /ou/ (out) as /ă/ + the glide /w/.
>
> The vowel-r phoneme /er/ (*her, fir, fur*)

(2) Identify and Change Vowel Phonemes (exercises from *Spellography*, Moats & Rosow, 2024)

The Short of It
Listen to each of the dictated words.
Repeat each word, say the vowel sound and point to the matching short vowel on the chart and/or say its name (*cot*, /ŏ/, short o).

- Set 1: *cot* /ŏ/, *kit* /ĭ/, *cut* /ŭ/, *cat* /ă/, *get* /ĕ/
- Set 2: *kept* /ĕ/, *capped* /ă/, *cupped* /ŭ/, *clipped* /ĭ/, *clopped* /ŏ/
- Set 3: *flop* /ŏ/, *flap* /ă/, *flip* /ĭ/, *fled* /ĕ/, *flood* /ŭ/

The Long and Short of It
Listen to the dictated words.
Form a new word by changing the vowel from long to short or from short to long.
Point to the substituted vowel sound on the chart as you say the new word.

- Set 1: *pip (pīpe), hop (hōpe), pep (peep), coop (cŭp), cope (cŏp), cap (capē)*
- Set 2: s*hut (shoot) /u/, mate (măt), note (nŏt), sweet (sweat) /e/, slight (slit)*

Consonant Adornment

Syllables can be adorned with consonants. Consonants before the vowel are called the onset. Consonants after the vowel are called the coda. The vowel plus the coda is called the rime.

When sound-letter correspondences are introduced, many phonics programs ask students to separate the onset (first sound) from the rime and make new words by changing the first sound on a given rime or word family (**-ad: bad, fad, lad; -end: mend, send, bend, lend**).

onset	rime	
tr	**u**	**st**
onset	peak / nucleus	coda

Beat It

As noted, a syllable is a pulse of speech organized around a vowel sound. A syllable is pronounced as one, co-articulated pulse. When you say, "*Emancipation Proclamation,*" you break *emancipation* into five, and *proclamation* into four pulses of speech. Pronouncing the ending of both words, with the common **-ation**, creates a common cadence. Try to clap it out. Listen to hear if a partner claps a similar rhythm ending with two quick claps on each word

Syllables are the pulse and beat of language, poetry and music. With practice, students can learn to count, and clap or tap the number of syllables and cadence in spoken, multi-syllable words like *rutabaga*. The longer the word, like *hippopotamus* or *Mesopotamia*, the more fun it is. Choral reading of poetry reinforces the rhythmic nature of spoken syllables and the rhythm of language.

Orthographic Syllable Patterns

Orthographic, or written, syllables follow similar but different rules from spoken syllables. The written rules came about as hyphenation rules, to determine where to break a word that does not fit at the end of a line of print. They are contrived, largely based on vowel identification that does not always jive with how syllables are spoken. We will use VCV words to home in on the difference.

According to orthographic rules in English, short vowels are spelled in closed syllables: a single vowel letter followed by one or more consonant letters guarding and closing in the vowel. If there is no consonant guard at the end of the syllable, the syllable ends in a single vowel letter forming an open syllable spelling a long sound. We use these basic orthographic syllable types that define closed or open syllables to divide words into syllables based on the identity of the vowel.

In vowel-consonant-vowel (VCV) words like *even, ever, visor* and *visit*, the consonant (C) between vowels is the monkey-in-the-middle. The first vowel is guarded, closed and short if the C stays home as in e**v**-er, and vi**s**-it. When the C moves to begin the second syllable, the first vowel is unguarded, open and long as in e-**v**en, and vi-**s**or. Students may need to try the vowel, and therefore the syllable division, both ways.

Working with VCV spellings provides an opportunity to teach students to flex vowels. About two-thirds of the time words with a VCV spelling break after an open, long first vowel (V/CV). That still leaves a lot of common words that work the other way with short vowels in closed syllables. Practicing flexing vowels, as with VCV words, prepares students to flex vowels in other contexts. They will have to use this skill to identify chameleon vowel graphemes like ow that spell more than one vowel sound (*cow tow*) and to identify schwa vowels in more than one syllable words.

Break Up: Break these VCV words into syllables based on the first vowel's identity and print rules for open or closed syllables.

minus	meter	robin	cable	level
mimic	metal	Roman	cabin	label

The Maximal Onset Rule

What makes this interesting is that we do not always divide a spoken syllable where we divide a written syllable. Instead, in speech we follow the maximal onset rule, a phonological rule. The maximal onset rule does not apply to orthography. This difference can cause a lot of confusion about dividing syllables. To investigate the maximal onset rule, start with lemon and divide the first syllable both ways, by speech and by print.

Word	Speech	Print
lemon	/l/ /e/ – /m/ /ə / /n/	l e m / o n

- Maximal means: "the most"
- Onset means: consonant sounds before the vowel in a syllable.

Maximal onset: The most onset

In speech, consonant phonemes lie between syllables like runners in a race, racing ahead. Most consonant phonemes glom onto the onset or beginning position of the second syllable. That is why when we pronounce lemon, the /m/ in *lemon* is in the onset position, beginning the second spoken syllable.

The rule for print is different. Because the *e* in *lemon* is short, it must be spelled in a closed syllable. The *m* stays at the end of the first syllable to guard the lone vowel. If lemon is squeezed, and does not fit at the end of a line of print, a hyphen is used to slice *lem-* apart from *-on*. Syllable division for print is about packaging print on a page and not always about where you hear the break.

Two Ways About It: Use a dash (–) after the first syllable to mark the syllable boundary based on speech, then based on print.

Word	Speech	Print
robin	/r//ŏ/ - /b//ĭ//n/	rob - in
atom	/ă/ - /t//ŭ//m/	at - om
magic	/m//ă/ - /j//ĭ//k/	mag - ic
cricket	/k//r//ĭ/ - /k//ĭ//t/	crick - et
plaster	/p//l//ă/ - /s//t//er/	plas - ter

Syllables exist on these two levels, speech and print, and they can operate by different rules.

Why Teach Syllables?

Let's return to the question, why teach syllables when they are complex and perhaps not well understood, and when there may be more efficient ways to teach reading and spelling including using morphology? Here are some reasons:

- We teach syllables to teach students to read and spell vowels.
- We teach syllables as one way to help students chunk longer words into smaller parts.
- We teach spoken syllables to fix or anchor the spoken word in memory.
- We teach written syllables to support the process of orthographic mapping to assist sight word recognition.
- We teach written syllables to support and organize spelling and word study instruction.

When we are working with print, we rely on orthographic or print rules to break words into syllables for decoding and spelling. As discussed, these rules are based on vowel identification, NOT where we hear the break. Vowel identification is the point.

Because different types of written syllables house different types of vowel sounds, six basic syllable configurations are helpful to know. English vowel sounds are represented through those six syllable types. Short (lax) vowels are almost always spelled with closed syllables; a few vowel teams can also spell short vowels (e.g., **bread, tough**). Long (tense) vowels are spelled using vowel-consonant-silent e (VCe), vowel-team or open syllables.

We can choose many vowel team spellings by position, initial, middle or final, in a syllable or word. Final complex consonant spellings like -k/-ck; -ch/-tch are based on syllable structure as are rules for adding suffixes. Print rules and patterns for syllables provide students with predictable choices for spelling vowels and consonants by position, and for adding suffixes. These are a few of the many places where syllable study is useful.

Schwa-tch Out!

In multi-syllable words, the system of syllable types is unreliable unless we account for unaccented syllables, schwa vowels, and the influence of morphology and word origin on spelling (Seidenberg, 2013). As with all things to do with syllables, the key is vowel identification and, in polysyllabic words, the ability to flex (substitute) vowels.

Many students have difficulty hearing or identifying syllable accents. Syllable accents goes hand in hand with vowel identification in making sense of spoken and written syllables. As soon as we begin to teach two-syllable words, syllable accents pop up.

In two-or-more-syllable words, one syllable has the main accent and one is unaccented. Vowels in unaccented syllables do not always play fair; they often do not sound the way they are spelled based on syllable type. Instead, many of these vowels are reduced to schwa /ə/, meaning emptied or muffled enough to sound like /ŭ/ (at**o**m) or /ĭ/ (bac**o**n). Schwa vowels make up about 20% of all vowels in spoken words (Moats, 2020). It is best to accept this sad fact and learn to love the schwa.

If students begin tracking accent patterns of spoken syllables and vowels reduced to schwa when they begin working with two-syllable words in second and third grade, that will set them up for more advanced word study to come.

I had a very hard time learning to recognize syllable accent and schwa vowels. After studying with Dr. Moats, I returned to my intermediate and middle-grade students at Guilford Central School in Vermont and tried to apply what I learned about word structure and, in this case, the muckle-muck schwa. I knew I needed to understand it better. An important thing was to trust my students and invite them to challenge me as I taught them. We got into debates about where to divide syllables and where to locate the primary or secondary accent. We assigned students, armed with dictionaries, to fact check. Sometimes there were options. The students found that correcting me was fun and interesting, and we all got better at it. It takes time, but learning syllable accent patterns and making peace with the schwa is very doable.

Here are three exercises to introduce and practice syllable accent and the schwa.

(**1**) **Last First**: Isolate and read the second syllable as if it were its own word. Then read it the same way when you read the full word and then how it actually is pronounced. Have the student say both the isolated syllable and how it is spoken in the two-syllable word (**pet; trumpet**: /p//ĕ//t/ becomes /p//ĭ//t/).

pet	trumpet		som	blossom
Tom	custom		dom	random
ton	carton		let	goblet
ten	kitten		age	cottage
den	sudden		ket	blanket
pet	trumpet		som	blossom

(2) Homographs: A second way to introduce syllable accents and the schwa is with homographs. Homographs are words with the same spelling but different accents and meanings (***affect, affect***). The spelling doesn't distinguish the pair. To hear the change, use each pair of homographs correctly in sentences and determine part of speech: noun, verb, or something else.

object/ob**ject**   **con**duct/con**duct**   **sus**pect/sus**pect**   **pro**duce/pro**duce**

First syllable accent words are nouns. Second syllable accent words are verbs.

(3) Call the Dog: Calling the dog is a third way to help identify stressed and unstressed syllables. Martin, my dog, likes to listen when he feels like it. He trained himself! Try calling Martin. When you call the dog, you naturally put more stress on the accented syllable, saying it louder and/or longer. Try it both ways to see which way sounds right.

Mar tin or Mar **tin**

Suppose your dog was named the following. Try calling the dog to find the accent.
The syllable you hold the longest or say the loudest has the primary accent.

Name of the Dog	Underline the Main Accented Syllable
Furman	Fur man
Pollywag	Pol ly wag
Bone-Diddily	Bone - Did di ly
Lickity	Lick i ty
Apawstrophy	A paw stro phy

If you are a cat person, call the cat.

Name of the Cat	Bold the main accented syllable
Purrfect	Purr –fect
Catalac	Cat – a - lac
Catatonic	Cat – a – ton – ic

Word Study: All Together Now

The layers of language interact in word study instruction. Teaching students to become aware of vowel identification and syllable accent patterns in speech, mapping those patterns to syllables in print, comparing syllable structure to morphological structure, and addressing meaning and usage, all create depth of word knowledge or deep lexical quality (Perfetti, 2007). By the intermediate grades, we can teach predictable places to find unaccented syllables, informed by syllable and morpheme type. By middle school, advanced syllable tracking is an essential part of word study; especially for learning more complex vocabulary in science, math, the social sciences and literature. In the exercises below we model such instruction by looking at typical positions for unaccented open syllables as prefixes. We then look at unaccented open syllables in the medial position (inside a word) as part of a two-syllable suffix. In both we combine open-syllable study with morphology study.

(1) Unaccented Open Prefixes: In words containing prefixes, when the prefix is unaccented, it can be hard to identify and spell. Prefixes with open syllable spellings are often unaccented with vowels reduced to schwa.

- Read the prefix alone.
- Then read the longer word.
- What happens? Are there some prefixes that work both accented and unaccented?

a	ahead		de	depart
a	ago		di	divide
be	between		pre	prescribe
re	remark		pro	product
se	secure		per *	perspire
a	ahead		de	depart

* per- is vowel-r, not open. It is here because pre-, and pro- can be confused with per- in spelling.

Some of the unaccented, open prefix spellings here have the VCV pattern addressed above. We teach students they can flex the first vowel knowing open syllables have long or schwa vowels, while closed syllable vowels will be short or schwa. The big idea here is to teach students that when they flex vowels, schwa is an option.

(2) -able or -ible: In this exercise, all the words have the same stress pattern; an accented first syllable, a middle, open unaccented syllable, and a final -Cle syllable. In set 2, we introduce the two-syllable Latin suffix **-able/-ible**, using the same accent pattern to illustrate why sounding out does not work for spelling. Students need other clues to spell **-able** from **-ible** such as language of origin.
- Read the open syllable alone as if it were its own word with the proper long vowel.
- Then read the full word syllable by syllable.
- Note the change (in *cu-bi-cle*, /b//ī/ becomes /b//ə/).

Set 1: Unaccented open prefixes			Set 2: -able /-ible	
bi	cu-bi-cle		ka	li-ka-ble
ti	par-ti-cle		pa	ca-pa-ble
hi	ve-hi-cle		ci	for-ci-ble
na	bar-na-cle		ri	hor-ri-ble
sta	ob-sta-cle		ta	quo- ta-ble
bi	cu-bi-cle		ka	li-ka-ble

(3) Advanced Syllable Tracking: Thomas Baldwin Jones notes, "The suffix type, in addition to suggesting the part of speech of a word, often dictates the primary accent" (1997, p. Ap. ii-34). It is useful to track syllable accent when adding a suffix shifts the accent in morphologically related words. As we saw with the **-able/-ible** example, it is common for open syllables to be unaccented in the medial position (inside a word). Also note that accent shift can involve other more subtle changes in consonant pronunciation when derivational suffixes are added. In **_photo_, _photographer_,** and **_photographic_**, the /t/ in "photographer is spoken with aspiration (a puff of air), whereas /t/ in photo and photographic becomes a tongue flap, similar to /d/ (with no puff of air).

In the word pairs below, identify the patterns in each column; the first pair in each column provides a model.

- Divide words into syllables following print rules.
- Underline the main accented syllable.

at-om	**com**-bine (noun) com-**bine** (verb)	**hos**-tile	**cus**-to-dy
a-**tom**-ic	com-bi-**na**-tion	hos-**til**-i-ty	cus-**to**-di-an
history	acclaim	human	Canada
historic	acclamation	humanity	Canadian
dynasty	apply	equal	comedy
dynastic	application	equality	comedian

State the pattern you see in each column.

The syllable before **-ic** gets the accent.	The syllable containing the long /ā/ before **-tion** gets the accent.	The syllable before **-ity** gets the accent.	The syllable before the long /ī/- connector syllable gets the accent.

Syllable tracking in derived sets of words anchors the phonological representation of longer, more complex words found in content classes. This syllable work helps students retain the full phonological representation in memory, acting as the anchor that links derived forms, spelling, meanings and usage.

Conclusion

In this article we discussed the importance of syllable study and its role in word study. We teach syllables to help students read and spell vowels, chunk longer words into smaller parts, support orthographic mapping in anchoring the printed word to the spoken word, and support and organize spelling instruction.

A spoken syllable is a pulse of speech organized around a vowel sound. Vowel identification is at the heart of syllable study. The study of syllables moves from speech to print starting with vowel identification, then accent identification and eventually derivational set tracking. Introducing syllable accents and vowels that are reduced to schwa is important once we begin using two or more syllable words. Teaching syllable accent is critical once students are in the intermediate grades, leading to even more advanced study in middle school and high school as students confront longer, more complex words.

Spoken and printed syllables have differences that can muddy instruction; especially differences in how we divide syllables in polysyllable words.

Working with print, we use print rules for division based on vowels being spelled appropriately in syllables, not where we hear the break. Teaching syllable and morphological structure gives students flexibility in analyzing a written word. In polysyllable words, syllable division accounting for accent shift, and morpheme division, require problem-solving and word analysis skills, not rote memorization. Marcia Henry noted:

> The student must learn that words can be broken down in several ways; that words are made of letters that have sounds; and that words are made up of syllables and morphemes (Henry, 1988, p. 263).

Teaching syllables by type is useful because it helps us organize word study and teach common spelling patterns. When we study closed syllable spelling we use the principle, *short vowels attract consonants*, to teach double s, l, f, z, final complex consonant spellings (final k versus ck; ch versus tch; ge versus dge), final consonant blends including nasal blends, and the doubling and advanced doubling rules. When we study VCe syllables we contrast closed with VCe syllables, review consonant doubling, the doubling rule, and introduce the silent-e rule.

Meet the Writer and Editors

Dr. Bruce Rosow

Dr. Rosow has been an educator for 39 years. He has worked with students from prekindergarten through graduate school. Dr. Rosow began his career as an intermediate grade classroom teacher at Guilford Elementary School. Starting in 1991, he began training in structured literacy instruction, studying with Dr. Louisa Moats at the Greenwood Institute. In 2008, Dr. Rosow completed his doctoral studies in educational psychology at American International College. Over this time, and for close to a decade, Dr. Rosow served as the Academic Dean of the Greenwood School working with middle and high school students.
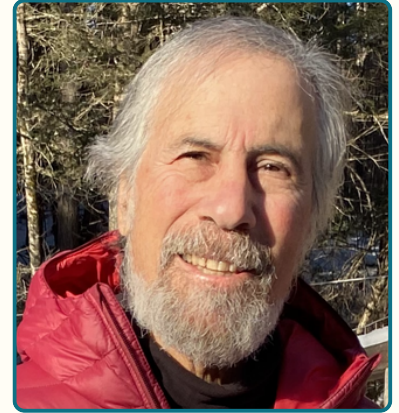
He then returned to public education, working in the Windham Central Supervisory Union, where he created and ran the Language Lab providing remedial instruction to struggling readers. For almost two decades, Dr. Rosow also taught in the Language and Literacy Program at The Reading Institute, Simmons College and Bay Path University. Dr. Rosow and Dr. Moats recently completed the revision of Spellography, a word study curriculum for intermediate grade students (95% Group, 2024). Dr. Rosow also co-authored the Speech to Print Workbook, 3rd Edition with Dr. Moats (Brookes, 2020). Dr. Rosow continues to tutor students, to write curriculum, to train teachers, and to advocate for students with learning differences.

Kathryn Grace, M. Ed, CAGS

Kathryn served as a classroom teacher, special educator, literacy coach, learning specialist, and language arts coordinator for over 40 years in Vermont's public schools. Ms. Grace was a professional developer for the Stern Center for Language and Learning and an adjunct professor at Trinity College. She is the proprietor of Learning Roots, an educational consulting, tutoring, and student advocacy business, and continues to offer literacy workshops and educational materials. First published in 1991, Really Great Reading will soon release the 4th edition of Ms. Grace's *Phonics and Spelling through Phoneme-Grapheme Mapping*. The recipient of numerous awards in education and active in the local community, she has lived in Waterbury for 46 years.

Dorinne Dorfman, Ed.S., Ed.D., OG/A

Dorinne Dorfman has served as a teacher and principal for nearly 30 years in Vermont schools. After completing her undergraduate studies at Goddard College, she earned her Master's and Doctorate in Educational Leadership at the University of Vermont. As a postdoctoral Fulbright Scholar, she taught at the Technical University of Berlin and conducted research on democratic education in Germany. Since completing an Education Specialist Degree in Reading and Literacy Instruction at Bay Path University, Dr. Dorfman teaches evidence-based literacy at Barre Town Middle School.

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Answer to this issue's **Curious Question:**
What are some common **nonreversible word pairs** to teach?

back and forth, bread and butter, bricks and mortar, cause and effect, cloak and dagger, flesh and blood, forgive and forget, front and center, give and take, law and order, lock and key, name and address, null and void, pots and pans, pros and cons, pure and simple, rain or shine, salt and pepper, shirt and tie, stars and stripes, supply and demand, thick and thin, trial and error, wait and see

Kress, J. E. & Fry, E. B. (2016). *The reading teacher's book of lists*. Jossey-Bass. p. 129

Answer Keys

Break Up Answers

mi/nus	me/ter	rob/in	ca/ble	lev/el
mim/ic	met/al	Ro/man	cab/in	la/bel

Advanced Syllable Tracking Answers

at-om	**com**-bine (n) com-**bine** (V)	**hos**-tile	**cus**-to-dy
a-**tom**-ic	com-bi-**na**-tion	hos-**til**-i-ty	cus-**to**-di-an
his-to-ry	ac-**claim**	**hu**-man	**Can**-a-da
his-**tor**-ic	ac-cla-**ma**-tion	hu-**man**-i-ty	Ca-**na**-di-an
dy-na-sty	ap-**ply**	**e**-qual	**com**-e-dy
dy-**nas**-tic	ap-pli-**ca**-tion	e-**qual**-i-ty	co-**me**-di-an