READING TEACHING READING IN BRIEF

## ORTHOGRAPHY AND MORPHOLOGY VOL. 3, NO. 1

### A Note from the Editors for the Third Series In this third series of *Teaching Reading in Brief*, we focus on the history of English and morphology. The articles in this series will explore these meaningful word parts (suffixes, prefixes, base words, and Greek and Latin roots) and give readers fun, easyto-implement teaching activities.

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Understanding phonology and phonics is vital to teaching literacy in an alphabetic language. However, English orthography (a language's spelling system) is rather complex because it is morphophonological. Simply put, English is an alphabetic language with a rich, complicated history. An understanding of morphology improves word identification, reading comprehension, vocabulary, spelling, and written expression (Carlisle, 2000; Nagy, Berninger, & Abbott, 2006; McCutchen & Stull, 2015). Articles will include the following:

- 1. History of English and its impact on spelling
- 2. Suffixes in the Primary Grades
- 3. Spotlight on Suffix Spelling Rules
- 4. Prefixes: From Simple to Chameleon
- 5. Latin Roots and Greek Combining Forms
- 6. Spotlight on Latin Suffixes -tion and -sion

To quote South African journalist and writer Gugulethu Mhlungu, "Why is baked pronounced as baked [bākt] but naked isn't pronounced as naked [nākt]? Because, as someone said, English is not a language, it's three languages wearing a trench coat pretending to be one."

After you read Marisa Thomas's first article in this series, you will understand more about the three languages hiding under this trench coat. We hope you enjoy this walk through history and leave with new ideas to bring to your students.

## Overview of English: Anglo-Saxon, Latin,

## and Greek Layers within English

by Marisa Thomas, M.S.Ed., A/OGA

This article will address the following questions:

- 1. What is the history of the English language in brief?
- 2. Why teach the Anglo-Saxon, Latin, and Greek layers within English?
- 3. What are some quick and effective teaching activities?
- 4. How do we measure student progress?

### Introduction

If your students are anything like mine, they ask questions like, "Why does English have to be so complicated?" or "Why are there so many ways to spell this sound?" There is no denying that English is complex. The intricacies of our language result from a rich and varied history of political, social, and linguistic influences.

English consists of three languages rolled into one: Anglo-Saxon, Latin, and Greek; each with its discrete letter-sound correspondences and structural rules (Gillingham & Stillman, 1997; Moats, 2005). Many common, everyday words in English are derived from Anglo-Saxon (e.g., *was, earth*).

On the other hand, since English words retain spelling patterns from their language of origin, the result is (1) an abundance of words that are not spelled exactly how they sound, (2) speech sounds (phonemes) that are represented by multiple letter combinations (graphemes), and (3) graphemes that can represent multiple phonemes. Following crucial prerequisite skills of strong phonemic awareness and letter-sound proficiency, understanding why these complex systems of orthography exist is one key to helping students (and teachers!) overcome the confusion and conquer the code of English. Simply put, English prioritizes preserving the historical spelling of words over pronunciation, which is why students cannot solely rely on phonetic spelling.

### 1. What is the history of the English language in brief?

Great Britain has a long history of interactions with other cultures and languages, all of which have contributed to how modern American English is spoken and written (Eide, 2011; Henry, 2010; Moats, 2020). Here is a simplified timeline of linguistically significant events throughout the past 2,000 years.

c. 1st century - 1000 C.E.

- Germanic tribes (Angles, Saxons, Jutes) occupied much of England.
- Anglo-Saxon became the common language and included short words for everyday living.
- In 54 C.E., the Roman Empire occupied the British Isles. The ruling class, military, and educated population spoke Latin while the majority of the region lived in rural areas and continued to speak Anglo-Saxon or Old English.

### c. 1200 - 1400 C.E.

- Great Britain is liberated from the Normans.
- Upper classes spoke Middle English, a combination of Anglo-Saxon, French, and Latin.

### c. 1800 - Present Day

- Global commerce and the Industrial Revolution added new words from across the world to the English language.
- The advent of the digital age and global connectivity rapidly adds words to the English language.

### c. 1000 - 1200 C.E.

- In 1066 C.E., The Norman French invaded Great Britain.
- Three hundred years of trade and politics occurred in French (closely related to Latin).
- Latin continued its influence as the language of the Catholic Church, as well as in universities where Latin was required for speaking and writing.

### c. 1400 - 1800 C.E.

- The Renaissance and classical revival periods brought Greek influences to the British Isles. Greek terms were used to describe new scientific and philosophical discoveries.
- The invention of the printing press led to increased standardization in written language.
- Scholars prized using words from various languages to embellish their writing, leading to a rapid expansion of English vocabulary.
- European colonization spread English across continents and integrated indigenous languages into English.

Additional resources for learning about the history of English and its impact on spelling and pronunciation can be found at the end of this article.

# 2. Why teach the Anglo-Saxon, Latin, and Greek layers within English?

English is a morphophonemic language. This means that spelling and pronunciation represent units of meaning (morphemes) and speech sounds (phonemes). In many multisyllabic words, meaning overrides pronunciation. Henry (2010) states, "Certain morphemes keep their written spelling even though their phonemic forms change" (p.49).

Therefore, unusual English spellings and pronunciations can often be explained by the word's historical origin. Consider these examples of how meaning overrides pronunciation in spelling:

- Why is the word friend spelled with ie? Friend is the opposite of fiend; both words are derived from Anglo-Saxon. The ie in friend was likely maintained due to this connection in meaning from thousands of years ago (Etymonline.com, 2021).
- Why is the word muscle spelled with a c? Muscle originates from the Latin musculus (pronounced mŭs-cū-lĭs). We pronounce the c in the adjective form muscular, but not the noun form muscle, likely due to a change in pronunciation over time (Dictionary.com, 2025).

Why is the /k/ in *chrome* spelled with *ch* instead of *c* or *k*? The phoneme /k/ in Greek is spelled with *ch*. Greek roots like *chrom*, meaning "color." maintain this original spelling. Other words from this root include *monochrome*, *chromatic*, and *chromium* (Henry, 2010).

This morphophonemic nature of English orthography (or spelling system) is not simple. Learning to read and spell requires direct, explicit instruction first in phonology (study of speech sounds) and later in morphology (units of meaning).

Both phonology and morphology are needed for orthographic mapping, the storage of words in long-term memory for instant retrieval at a later time (Kilpatrick, 2015; Moats, 2020). Etymology, or the study of word origins, provides another gateway to accessing a word's pronunciation, its written code, and its meaning. Understanding the common patterns and features of each layer within English goes a long way to helping students understand this morphophonemic code. Over time, this knowledge will equip students with the tools to expand their reading, spelling, and vocabulary knowledge. This instruction helps students learn to appreciate that the complexity of English is interesting, logical, and full of patterns (Eide, 2011).

# LAYERS WITHIN ENGLISH

Language Layer	Common Features	Example Words
Anglo-Saxon	<ul> <li>short, everyday words</li> <li>silent letters, vowel teams, and digraphs</li> <li>compound words</li> <li>irregular past tense verbs</li> <li>pronouns, articles, conjunctions</li> <li>closed syllable word families (ind, old, ost, alk, ng, nk, all, etc.)</li> <li>short vowel spelling patterns (ff, ll, ss, zz, ck, tch, dge)</li> <li>most consonant -le syllables</li> </ul>	walk, laugh, knee, pigpen, stood, she, the, and, would, puff, stack, etch, thing, chunk, find, old, simple, whittle
Latin	<ul> <li>Multisyllabic words with prefixes, roots, and/or suffixes</li> <li>Open or silent -e syllables for long vowel sounds</li> <li>Many words from politics, religion, and literature</li> </ul>	invention, projectile, denote, society, transportation, reject, agenda, solar, extreme
Greek	<ul> <li>Combining forms with two or more roots</li> <li>Many words from philosophical, mathematical, and scientific fields</li> <li>ph = /f/, ch = /k/, medial y = /ĭ/</li> <li>less-common silent letters: ps-, pn-, rh-, pt-, mn-</li> </ul>	geography, chronological, hydrogen, claustrophobia, telephone, amphibious, diagnosis, psychology, pteradactyl
Sources: Eide, 2011; Henry, 2010; Moats & Tolman, 2009		

### 3. What are some quick and effective teaching activities?

Teachers and students are not expected to be experts in word origins. However, it is recommended that teachers have a basic knowledge of the history of English and the common features within the Anglo-Saxon, Latin, and Greek layers as they relate to vocabulary, pronunciation, and spelling. This will help teachers embed each layer into reading and spelling instruction, which will support reading comprehension (Henry, 2010).

Students should learn the most common spelling and structural features of each layer. In addition, they should learn the meanings, spellings, and pronunciations of common morphemes. For example, a student who knows that the word *chronology* is of Greek origin will know that the /k/ sound at the beginning will be spelled with the grapheme *ch*. If they know the root *chron*, they will know that the meaning of this word is related to time.

### A Note about the Anglo-Saxon Layer of English

Many sound-symbol correspondences in English are derived from Anglo-Saxon, as well as many irregularly spelled words.

Curious Question: What are some words that include both a Greek and a Latin root?

Since this is the oldest layer within English orthography, it is most affected by change over time. This has led to many words that are more difficult to spell than they are to read. We can thank the Anglo-Saxon layer for:

- Common closed syllable exceptions that are often taught as "glued sounds" or "word families" (-*ing*, -*ank*, -*old*, -*ost*, -*all*, etc.).
- Short vowel spelling patterns for graphemes -ck, -tch, -dge, -ff, -ll, -ss, and -zz.
- Most high-frequency, irregularly spelled words, sometimes called "red words," "trick words," "heart words," or "learned words" (e.g., *said*, *would*, *of*, *was*).

Direct, explicit instruction is needed for students to master these complex graphemes and irregular word spellings. Students are likely to need more practice spelling these words than they will need to read them with automaticity (Moats, 2005).

When reading and spelling irregular words, students cannot solely rely on their knowledge of letter-sound correspondences. Instead, students must memorize components of these words, or more accurately, the phonetically irregular part of the word, through explicit, multisensory, and repeated instruction (Henry, 2010). Before sharing a few teaching activities, it is important to first address the concept of a scope and sequence, which is at the heart of any good foundational literacy program.

A scope and sequence explain what content a curriculum will cover and when that content should be taught. A good scope and sequence is a vital component of evidence-based instructional materials, as it ensures that skills are taught explicitly to mastery and that instruction progresses systematically from less complex to more complex content (Iowa Reading Research Center, 2023).

An effective scope and sequence should teach foundational literacy skills from simple to complex, common to less common, and reliable to less reliable, all of which are core principles of the Orton-Gillingham approach. A good scope and sequence integrates the morphology discussed in this article; therefore, teachers do not need a separate literacy curriculum to teach Anglo-Saxon-derived spelling patterns, prefixes, suffixes, and Greek and Latin roots.

Content teachers can selectively integrate some of this information (e.g., teaching prefixes related to numbers in geometry) to support content-specific vocabulary.

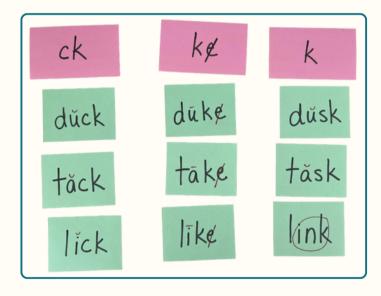


# TEACHING READING IN BRIEF: ORTHOGRAPHY & MORPHOLOGY

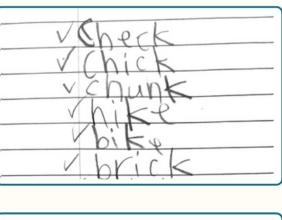
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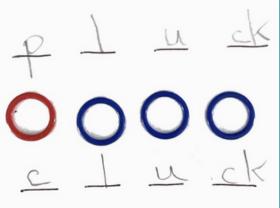
### Teaching Activity #1 - Word sort

Students mark, read, and sort individual words into two or more categories. For example, students could sort words ending in -ck (tack), -ke (take), and -k (dusk). (See picture below.) Another example is to ask students to sort words if they contain a prefix, suffix, both, or none. Students are given immediate corrective feedback when an error occurs, and teachers frequently ask why a word is spelled or sorted into its category. After correctly sorting all the words, students should reread the words in columns and from left to right.



**Teaching Activity #2 - Word chain for spelling** The teacher dictates words that contain the focus concept for students to spell. Each consecutive word changes by 1-2 sounds to reinforce phoneme-grapheme correspondence and spelling patterns. Variations include (1) using all words with the target pattern, (2) including words across taught syllable types to review previously learned concepts and give students practice flexing vowel sounds, and (3) using manipulatives to scaffold the activity for struggling spellers. In all variations, immediate feedback is given when students make an error. At the end. students reread the words to build fluency. For an added layer of review, students can mark the vowel sounds and syllable types of each word at the end of the activity. All the words dictated for students to spell contain previously taught syllable types and spelling patterns.







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# Teaching Activity #3 - Fill-in-the-blank word lists

Students are given a list of words with the target sound or word family removed. They read each word and then fill in the correct grapheme or word family to make a real word. Next, students read each word aloud and reread all the words at the end of the activity. Fill-in-the-blank word lists that contain more than one grapheme or word family (as in the example below) are more cognitively demanding. This activity is appropriate for more advanced students and for reviewing multiple concepts at once.

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### Teaching Activity #4 - Learning an irregular/non-phonetic word

The teacher explicitly models spelling the word for students, pointing out which parts of the word "play fair" and which do not. Whenever possible, the teacher tells students why the word is spelled this way, often including the word's origin. For many irregular words in the Anglo-Saxon layer of English, the modern pronunciation has changed since its origin in Old English. A quick search using a reputable online dictionary, such as <u>https://www.merriamwebster.com/</u>,

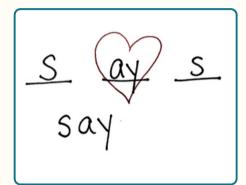
<u>https://www.dictionary.com/</u>, and <u>https://www.etymonline.com/</u>, will yield information about word origins. Teachers can then use this information to help students understand that even irregular words are spelled that way for particular reasons. Next, students practice reading and writing the word multiple times.

An old Orton-Gillingham teaching strategy known as *Trace*, *Copy*, *Cover*, *[eyes] Closed* is a useful, multisensory routine for this because it provides scaffolding for struggling students to eventually write the word on their own without support (Henry, 2010; King, 2015). The use of multimodal techniques, such as saying the letters while writing, reinforces the word in a student's memory.



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Struggling students will likely need frequent practice with these words (Gillingham & Stillman, 1997; Moats, 2005). Lastly, students can keep a record of learned irregular words in a notebook for quick reference (Gillingham & Stillman, 1997).





## A Note about Latin and Greek Layers of English

Many multisyllabic words are derived from Latin and Greek. This is especially true for content-specific vocabulary in science, math, and the humanities.

A key attribute of Latin-derived words is that they contain affixes (prefixes and suffixes. Students should be taught a variety of common affixes before learning Latin roots (Henry, 2010). Best practice is to teach high-frequency morphemes before less-frequent ones. Affixes and roots can also elevate foundational phonics instruction for older learners. For example, Latin roots *rupt*, *ject*, *struct*, and *tract* can be taught to reinforce closed syllables with consonant blends, or prefixes *pre*- and *pro*can be taught to reinforce the concept of open syllables.

**Greek-derived words** often appear in combined forms, which are two or more Greek roots combined to make words: **tele** + **phon** = **telephone**. Often, a connecting vowel is inserted between two roots for ease of pronunciation, such as the letter **o** between roots **chron** and **logy** in **chronology** (Henry, 2010). Letter-sound correspondences associated with Greek roots are **ph** = /f/ (**monograph**), **y** = /ĭ/ in a closed syllable (**myth**) and /ī/ in an open syllable (**cyclops**), and **ch** = /k/ (**chemistry**). **Teaching Activity #5 - Underline the root** Students are given a list of words that contain a target root. They identify and underline the root in a word before reading that word aloud. Students should connect the meaning of each word back to the root. When this activity is done well, it facilitates rich vocabulary discussion.

<i>rupt</i> Latin: means "to break or burst"			
e <u>rupt</u> ing	cor <u>rupt</u>	dis <u>rupt</u> ive	
bank <u>rupt</u>	a b <u>r u p t</u>	inter <u>rupt</u>	
<u>rupt</u> ure	dis <u>rupt</u> ion	cor <u>rupt</u> ible	

Anglo-Saxon	Latin	Greek
loud	sonorous	cacophonous
small	miniscule	microscopic
write	enscribe	autograph

**Teaching Activity #6 - Comparing Layers** (adapted from Henry, 2010) Students are given words with similar meanings from each of the three layers of English. Students notice and mark the features of each and discuss how the meanings are related and different.

Many effective activities exist for teaching the Latin and Greek layers of English. Subsequent articles in this series of Teaching Reading in Brief will discuss these in more detail.

### 4. How do we measure student progress?

Informal spelling assessments can be used to measure student knowledge of irregular words, spelling patterns, prefixes, suffixes, and roots. Knowledge of word meanings can be assessed using matching activities in which students are asked to connect, label, or match prefixes, suffixes, and/or roots with their meanings.

Student recognition of prefixes, suffixes, and roots can be assessed using word lists where students are asked to box or highlight the word parts they notice. All of these assessments may be administered in whole-class, small-group, and 1:1 settings. Assessing students' knowledge before, during, and after instruction will show progress over time.

Teachers are advised to pay careful attention to students' spelling because word recognition is often easier than spelling, especially for multisyllabic words. Keep in mind that struggling students will require more time and additional instructional opportunities to master the complex orthographic features within each layer of English (Moats, 2005). Additional resources about the history of English and its effect on spelling and pronunciation

### Children's Books

- Klausner, J. C. (1990). Talk about English: How words travel and change. Thomas Y. Crowell.
- Robb, D. (2007). Ox, house, stick: The history of our alphabet. Charlesbridge.
- Skipworth, P. (2020). Literally: Amazing words and where they came from. What on Earth!
- Zafarris, J. (2025). Once upon a word: A word-origin dictionary for kids. Callisto Kids.

### **Texts for Teachers**

- Baugh, A. C. (2012). A history of the English language (6th ed.). Routledge.
- Eide, D. (2011). Uncovering the logic of English: A common-sense approach to reading, spelling, and literacy. Logic of English.
- Henry, M. (2010). Unlocking literacy: Effective decoding & spelling instruction. Brookes.
- Moats, L.C. (2020). Speech to print: Language essentials for teachers. Brookes.
- Moats, L. C. and Tolman, C. A. (2009). Historical layers of English. Reading Rockets. <u>https://www.readingrockets.org/topics/spelling-and-word-study/articles/historical-layers-english</u>

### **Electronic Resources**

- Dictionary.com <a href="https://www.dictionary.com/">https://www.dictionary.com/</a>
- Florida Center for Reading Research, Second and third grade <u>https://fcrr.org/student-center-activities/second-and-third-grade</u>
- Merriam-Webster Student Dictionary for Kids. <u>https://www.merriam-webster.com/kids</u>
- TED Ed video lesson library: History of English. <u>https://ed.ted.com/search?</u> <u>qs=History+of+English+language</u>
- Online Etymology Dictionary <a href="http://etymonline.com">http://etymonline.com</a>
- Oxford English Dictionary History of English, <u>https://www.oed.com/discover/history-of-english?tl=true</u>
- Wordorigins.org<u>https://www.wordorigins.org</u>

All tables in this article were created by the author.

### Meet the Writer and Editors

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Marisa N. Thomas is a literacy intervention specialist with experience teaching structured literacy to students ages 6-16. She completed her undergraduate degree in Early Childhood and Childhood Education at the State University of New York at New Paltz, and then her Master's Degree in Reading and Literacy Education from Old Dominion University. Following her Master's program, she began her journey toward specialized structured-literacy instruction and understanding the science of how the brain learns to read and write. Marisa went on to earn her Associate Level Orton-Gillingham certification through the Stern Center Orton-Gillingham Institute. Marisa has experience as an elementary and middle school classroom teacher and literacy tutor in New York, Virginia, and Vermont. She currently enjoys her role as a literacy interventionist working with struggling students in Barre, Vermont.





#### Peggy Price, M.Ed., F/OGA

**Peggy Price** is the Director of the Stern Center Orton-Gillingham Institute, the only Orton-Gillingham Academy (OGA) accredited training program in Vermont. She leads a talented team of OGA Fellows and Clinical Supervisors who provide a wide range of courses and workshops, districtwide consulting, and in-depth mentoring for educators seeking OGA certification. Peggy has taught Orton-Gillingham to students ages 5 to 44 and finds joy in watching both students and educators grow as they learn the structure of English. She holds a Master's in Special Education from Georgia State University and a Bachelor's in Psychology from Binghamton University. Peggy believes every child has the right to read—and every teacher deserves the training to make that possible.

#### 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-aligned literacy at Barre Town Middle School.



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> Answer to this issue's **Curious Question:** What are some words that include both a Greek and Latin root?

Biodiversity, cyberspace, epicenter, geocentric, television, and physician.

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