

GETTING
STARTED

MORPHY LOGY

TEACHER RESOURCE



AlbertaRegionalConsortia



Alberta **Regional** Consortia

Getting Started with Morphology

Table of Contents

[Get \(Un\)comfortable](#)

[Student Notebook](#)

[Iterative Processes and Inductive Teaching](#)

[Using Word Families* to Explore Morphemes](#)

[Zooming Into Affixes](#)

[Inductive Teaching](#)

[Spelling Convention Flow Charts](#)

[Word Sums](#)

[Reading Word Sums](#)

[So Many Brackets \(and an Asterisk\)](#)

[Connect to Texts](#)

[Selecting Words to Study](#)

[Classroom Routines](#)

[Word of the Week \(Grade 1+\)](#)

[Anchor | Analyze | Practice \(Kindergarten - Grade 2\)](#)

[Word Bag \(Is it in the family?\) \(K-1\)](#)

[Which One Doesn't Belong? \(Grade 1+\)](#)

[Word Inquiry \(Grade 3+\)](#)

[Hypothesize the Word Sum \(Grade 4+\)](#)

[Build the Family \(Using a Word Matrix\)](#)

[Know the Family? Make a Matrix](#)

[Spelling/Suffixing Convention Assessment](#)

[Practicing Spelling](#)

[Key Terms for Teachers \(To Use with Students\)](#)

[Orthography](#)

[Morphemes](#)

[Word Family](#)

[Spelling Conventions](#)

[Resources](#)

[For Etymology](#)

[For Deeper Background Knowledge](#)

[General Resources & Classroom Practice](#)

[References](#)



Get (Un)comfortable

The success of this work requires us to become comfortable with not knowing all of the answers. We cannot wait until we know ‘all of the things’ before pursuing this work with students. Our work as teachers is to model curiosity around English spelling (rather than dismiss it as ‘crazy’ or ‘nonsensical’). When we encounter a question we don’t know the answer to, we can simply say “I’m not sure. Let’s figure it out together.”

Moreover, this work creates space for teachers to question how we have traditionally approached spelling instruction in our classrooms. As you use these routines with your students, it will likely become clear that there are many alternatives to the ‘weekly spelling test’ which allow for more authentic demonstration of student understanding.

Student Notebook

Students will need a place to record the orthography (morphology, phonology, and etymology) work that you will be guiding them through this year. This could be a wide-ruled notebook or a duotang filled with paper. Students in Grade 1 may prefer to use a non-ruled notebook to capture their thinking.

There are several possible titles that you can use for these notebooks, such as *My Word Inquiry Journal*; *My Lexicon Collection*; *Morphemes and More*; or *Word Work and Wonderings*. Feel free to select a title or make up something else that makes the most sense to you and your students.

Iterative Processes and Inductive Teaching

While the first instinct may be to approach each morpheme in isolation, in order to create deep understanding of spelling conventions and transfer of this knowledge, it is important that we approach this work with a few different processes. Not only will this provide students with many opportunities to apply their knowledge, it increases vocabulary and allows students to have ownership over their learning and discoveries.

Using Word Families* to Explore Morphemes

Asking students to brainstorm or develop a list of words within a word family might be the easiest way to explore morphology as students already have an understanding of how this works (through their oral language development). Word families let us revisit common affixes over and over again and see how spelling conventions apply to the different base elements. There are several learning routines that you can use with students to explore word families.

*In this resource (and all resources related to morphology work), a word family is a collection of words connected by meaning (definition/sense) and structure (spelling of base element); it is NOT a collection of rhyming words. See *Key Terms for Teachers* (below) for more information.

Zooming Into Affixes

There will be times when it makes sense to zoom in on certain prefixes and suffixes as part of your word inquiry work. Combining this with word family exploration will allow students to see how specific affixes function in English orthography and apply this understanding to unfamiliar words.

Inductive Teaching

Rather than explaining a spelling or suffixing convention and then showing students how it works with various samples (deductive teaching), it is more powerful to curate several examples (or case studies) for students to ponder and hypothesize what the suffixing convention might be. By allowing students to make their own discoveries which might prove or disprove their hypotheses, they are more likely to be able to transfer this knowledge to new or unfamiliar words. By asking questions to spark curiosity, teachers can create a space for inquiry into words and spelling. Questions to spark this thinking include:

- What makes a word, a word?
- Does every letter in a word make a sound?
- Is <ing> always a suffix?
- When do I double the last letter of the base element when adding a suffix?
- Are words with the same base always in the same word family?

Spelling Convention Flow Charts

Throughout the resources we have developed (as well as in commercially available resources) you will find flow charts to help you understand the spelling conventions for various affixes. Please resist the urge to simply give these to your students and ask them to follow the steps in the chart; there is little thinking involved in that approach. To empower students, have them create their own flow charts or contribute to a class flow chart as they hypothesize and discover patterns in English spelling.

Word Sums

There are two types of word sums: synthetic and analytic. Students might naturally start with analytic word sums, but eventually we will encourage synthetic word sums.

Synthetic Word Sum



Analytic Word Sum



Reading Word Sums

There are a few rules for reading word sums (which become easier to do with practice).

1. The base element is always spelled out (and not read as a word). This reduces confusion when the pronunciation of the base element shifts after affixing.
2. **+** is read as "plus"
3. **→** is read as "is rewritten as"
4. Word sums not only show how a word is built, but they also highlight suffixing conventions (such as doubling the final consonant of the base

or replacing the final, single, non-syllabic <e> when adding a suffix that starts with a vowel).

For more information on reading word sums, check out this [video](#). Dr. Peter Bowers also offers learning [support for spelling out loud](#) through [WordWorks Kingston](#).

So Many Brackets (and an Asterisk)

Several different kinds of brackets are used throughout this work. Morphemes are written in angle brackets, < >. Phonemes (which can sometimes be represented by multiple graphemes) are written in forward slashes, / /. Exploring [basic IPA symbols](#) will help you better understand the many resources on morphology. { } can be used to show change to the base word when we are unclear about what is happening to the base word to get the final spelling. For example, foot + {plural} → feet. Lastly, an asterisk is added to misspelled words or incorrect word sums. For example, *dog's to spell more than one dog or *g + love → glove.

Connect to Texts

It is highly recommended to connect your planned word inquiry work with some kind of text. Not only does this illustrate to students that the words worth exploring are right in front of them; it allows students to build understanding of the MEANING of the word. This is essential for brainstorming possible members of a word family because words within a family are connected by MEANING and STRUCTURE. If we do not know what a word means, we cannot identify members of its family. You can find words to explore within poems, picture books, read aloud texts, novels, or other subject areas. If you want some samples of what this might look like, check out Fiona Hamilton's (WordTorque) [Engage with the Page](#).

Selecting Words to Study

As mentioned previously, you can select words from any source for any reason to explore with students. You may wish to use

- Words that are familiar to your students (so they can see how words they know use affixes to become new words).

- Words that you want to be familiar to your students (because they are coming up in science, math, a poem, a read aloud, etc.)
- Words with spelling conventions that you are wanting to explore as a class.

The easiest words to work with in the beginning are ones that do not have any changes when adding suffixes. In other words, avoid short vowel words (CVC or CCVC words), words that end in a final, non-syllabic <e>, etc. CVCC words (such as <jump>, <kick>, <small>, etc.) do not experience suffixing changes so they would be the easiest to use when introducing morphology to learners of any age.

Classroom Routines

There are many different ways that you can include morphology in your classroom practice. This is not an exhaustive list. Feel free to adapt and adjust these to meet the needs of your students.

Word of the Week (Grade 1+)

Explicit examination of a word each week is a great routine to include in your classroom. You can further adapt this routine by including word sums for each word within the word family, building a word matrix for the word, or investigating the etymology of the word. Students could also be asked to make their own sentence using the word of the week or a member of the word family. Use the word of the week in your morning messages or choose a word from a book or poem you are planning to use with your students this week.

Word of the Week

quick

Legend:
● vowel
● consonant
○ phoneme/grapheme connection

Mapping: *q u i c k*
 ● ● ●

Syllables: /

Word Family:
quicker
quickly
quickest

Sentence:
My dog is very quick to escape when the front door opens.

Anchor | Analyze | Practice (Kindergarten – Grade 2)

Fiona Hamilton and Rebecca Loveless share this easy to use routine as part of [The High Frequency Word Project](#). Students ANCHOR the meaning by using the word in sentences to show they understand what the word means. Next we ANALYZE the word by looking at the word's structure (morphemes/ word sums). We determine the grapheme/phoneme relationship and take a look at the letters – what is the story? PRACTICE the spelling should be done in short, frequent bursts using strategies like tap-spelling, writing the word, or reading the word.



Anchor the meaning



Analyze the word

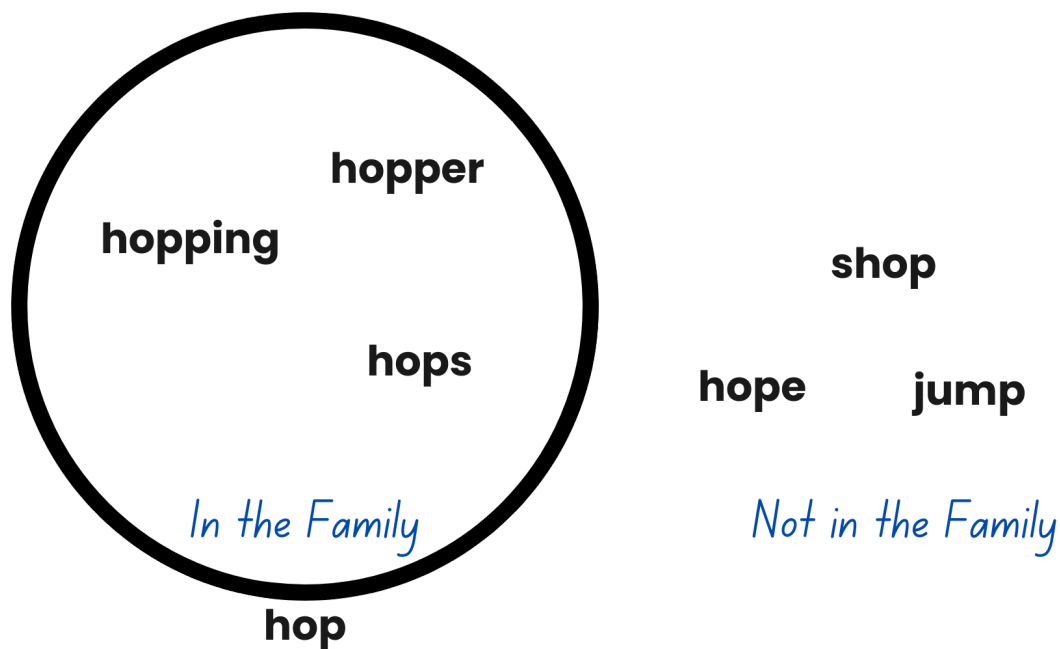


Practice the spelling



Word Bag (Is it in the family?) (K-1)

Introduce the base word to students. Pull words from a bag and have them tell you if it's in the word family of the base word, or not. These can be words that you have pulled from a poem or picture book, or ones that you are studying as part of your phonics work. Encourage students to explain why it is (or isn't) part of the family. This activity reinforces the notion that in order to be part of the word family, words must share a common structure (spelling) and meaning (definition/sense).



Which One Doesn't Belong? (Grade 1+)

This can be a quick filler activity at any time of the day. Write four words on the board, read them aloud to the students, and ask them to decide which one doesn't belong and why. This could be a think-pair-share, or a journaling activity where the words you write reflect the level of understanding your class has for orthography concepts.

Which One Doesn't Belong?

thinking helping smelling king

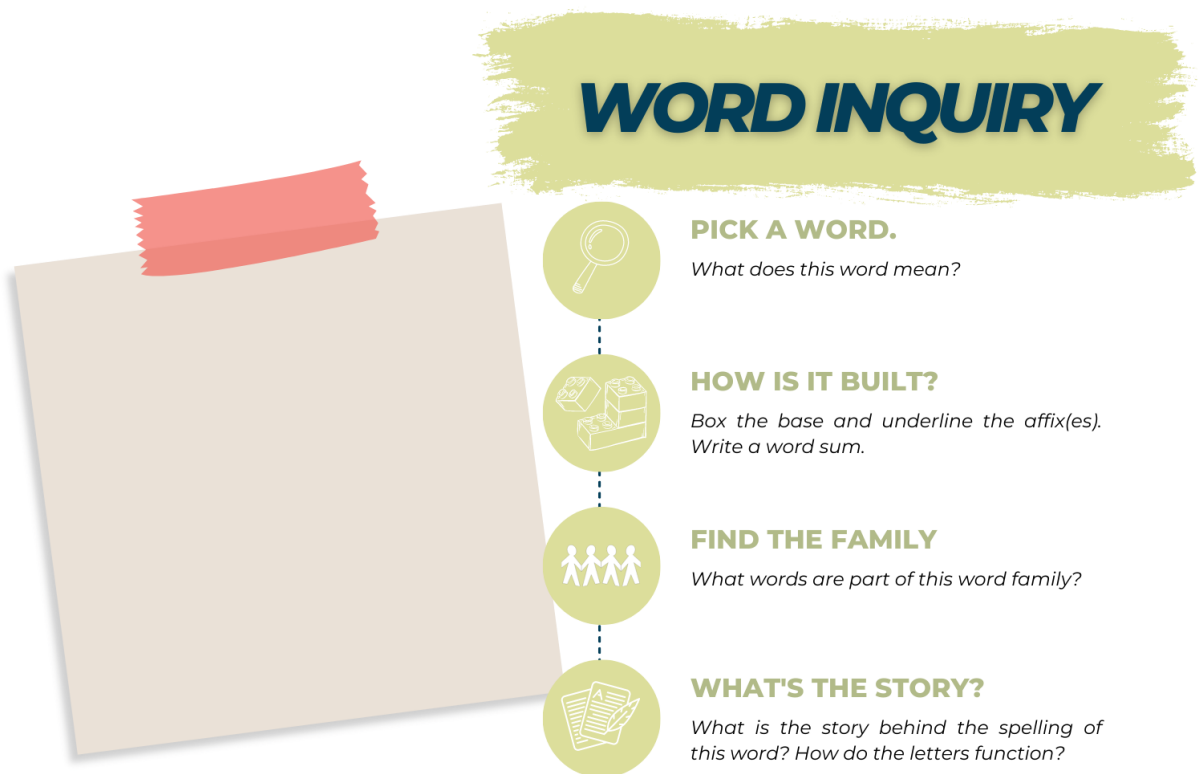
Which One Doesn't Belong?

triumph tricycle

triangle trident

Word Inquiry (Grade 3+)

Adapted from Dr. Peter Bowers' work with Structured Word Inquiry, this routine can be done as part of a whole class conversation, by small groups or partners, or individually once students have an understanding of morphemes and how words are built. Again, we highly recommend selecting words from a text when doing this as a whole group to help solidify understanding of the definition of the word before exploring it further. Completed word inquiries could be displayed in the hallway or classroom or be included in your classroom blog or newsletter.



Hypothesize the Word Sum (Grade 4+)

Clarifying the procedure for Structured Word Inquiry, Mary Beth Steven offers these steps for students to consider when trying to hypothesize a word sum. This is particularly helpful as words become more complex and students begin to include bound bases with Greek or Latin origins in their word study.

Hypothesize a Word Sum



How do you think the word is built?



What other words share your hypothesized base and/or affixes?



Do you need to revise your hypothesis?



Investigate and share your discovery.

Build the Family (Using a Word Matrix)

Once students have a sense of how word families work, including writing word sums for the words within the family, you can introduce them to a word matrix. [This video might help](#) build your understanding.

To read a word matrix, we move from left to right. We are not required to select from each column (prefix for example), but we cannot skip a column in sequence. We only use one element from a column at a time. We also cannot cross a horizontal line in the matrix. Using a word matrix we can build many word sums. Students must know the meaning of each word that they build and be able to use it in a sentence to convey that understanding. It is important to note that word matrices are often incomplete (i.e. doesn't show the entire word family), and that's okay; we can still use them!

as re		sign	al ed er ing ment s	
re	de		ate	ure

Know the Family? Make a Matrix

Once students have a sense of how word families work, including writing word sums for the words within the family, as well as reading a word matrix, you can introduce them to making their own ([video](#)).

Visit the [Mini-Matrix Maker](#) and teach students how to use this online tool to build their own word matrices. (Teachers will want to play around with this tool before taking students to the site.) This could easily be a weekly classroom job or part of a station rotation structure in your classroom to give students agency over sharing their information with others. Student-made matrices could be displayed somewhere in the classroom (as part of your word inquiry space) and/or added to their morphology notebooks.

Spelling/Suffixing Convention Assessment

Want to see if your students can transfer their learning to other words? Try using word families in your spelling assessment! This allows you to gather information which will inform your next instructional steps (such as revisit concepts as a whole group or small group instruction).

1. Students record the base at the top of their page in angle brackets.
2. Teachers recite a list of 5+ words in the family (with a sentence to give it meaning).
3. Students write synthetic word sums to show how the word is built.
4. Teachers review the word sums to identify where additional instruction may be required.

Practicing Spelling

Practicing spelling is still an important part of building solid neural pathways for our students. This could look like students asking each other to spell target words aloud at a word work station, students recording the spelling on individual white boards and turn to show you when complete, students building words with grapheme and/or morpheme cards, or students editing their own writing for any errors that they notice. While activities like 'rainbow writing' (where students write the word in several

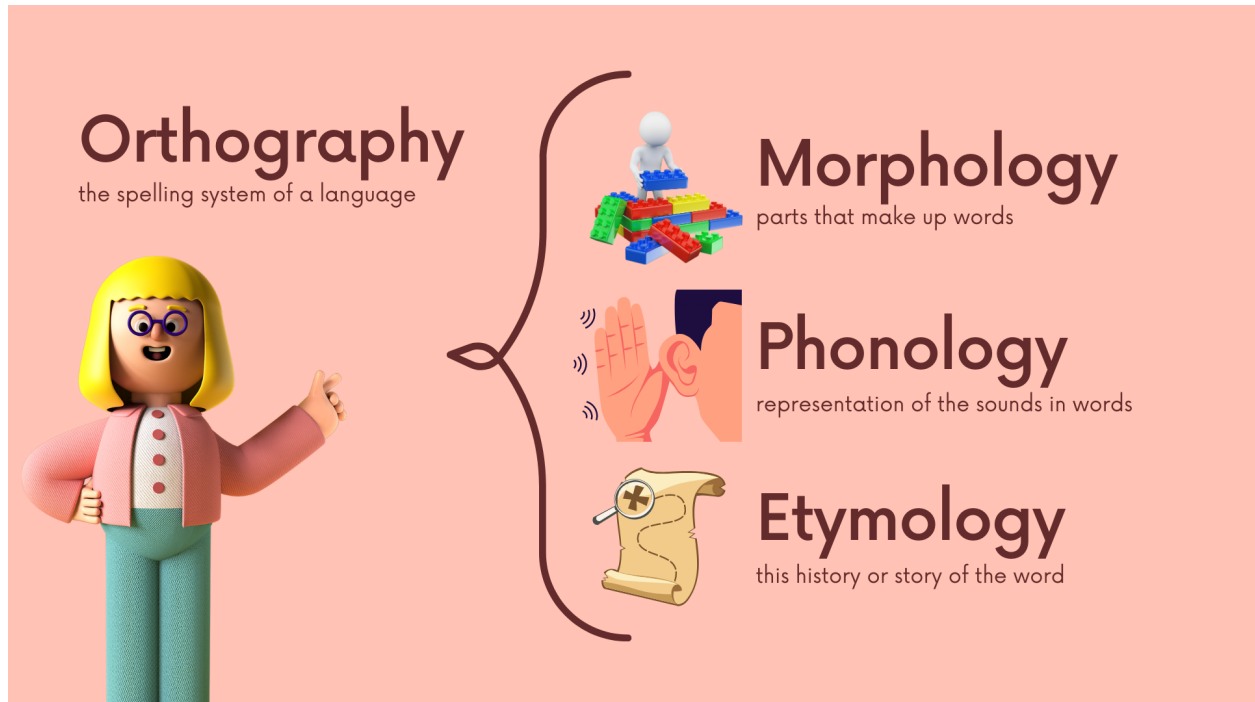
colours) may be fun, there is little evidence to show that this contributes to deep understanding of spelling concepts.

Key Terms for Teachers (To Use with Students)

Orthography

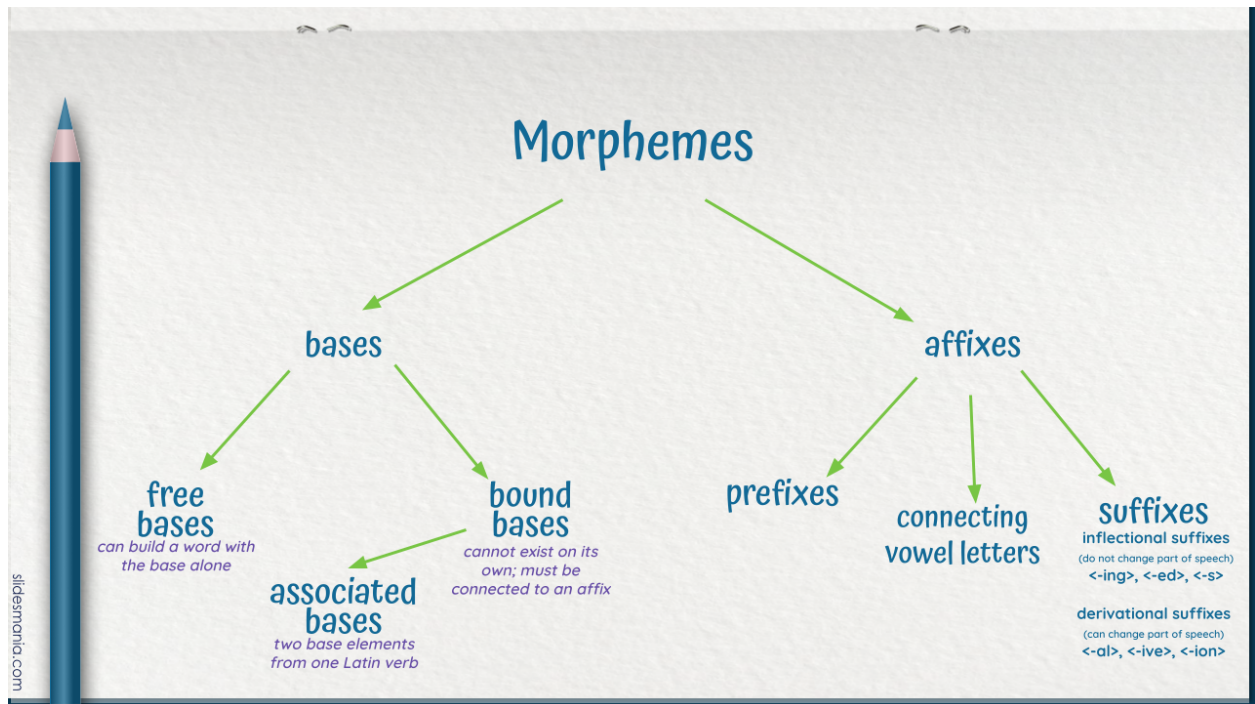
Orthography is the study of the entire spelling system of a language. The primary purpose of spelling is to communicate MEANING (while reading text). There are three parts to orthography: morphology, phonology, and etymology. In order to create a clear understanding of English spelling, each part of orthography must be explored.

There are times where it will make sense to focus in on one of the areas (particularly during explicit instruction) but we need to avoid spending *all* of our time with one area and neglecting the others.



Morphemes

These are the smallest meaningful units of language. Morphemes can be sorted into two categories: bases and affixes.

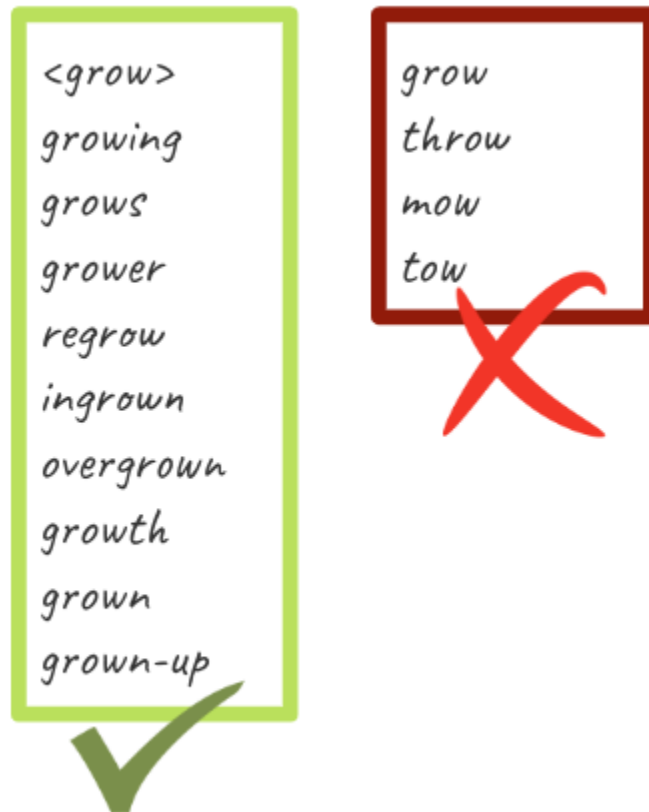


Bases can be further sorted into free bases (can be a word on its own) or bound bases (must be connected to an affix to be a word). A subcategory of bound bases are associated bases (sometimes called twin bases) and these derive from one Latin verb. Some resources refer to bases as stems or roots. The latter can be confusing as we often refer to the historical sense or meaning of the word as the root. Avoid using base and root as synonyms.

Affixes include prefixes and suffixes. Additionally we may use a connecting vowel letter with some suffixes and therefore they are also considered a type of affix. Some resources may refer to suffixes as “endings” and prefixes as “beginnings”. As we will discover some words that make use of more than one suffix (and/or prefix), it might be best to simply think of suffixes as morphemes that come after the base and prefixes as those that go before the base.

Word Family

Words that are part of a word family are connected by MEANING and STRUCTURE. This means that this collection of words shares a common definition or 'sense', as well as spelling/letters. PLEASE NOTE: Word families are NOT a collection of rhyming words. There is no 'at' family where mat, sat, and hat are included; that is simply a collection of rhyming words.



Spelling Conventions

We prefer to use the word *convention* rather than *rule* when talking about how we work with morphemes. The word *rule* implies that it should be followed at all times, no matter what; whereas, a *convention* is something we usually do but there may be times we don't. In the book, *Beneath the Surface of Words*, Sue Hegland reminds us "if you notice a word where a spelling convention is not followed, there will be a reason" (pg 108).

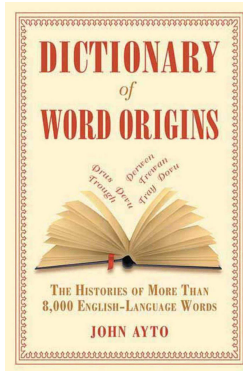
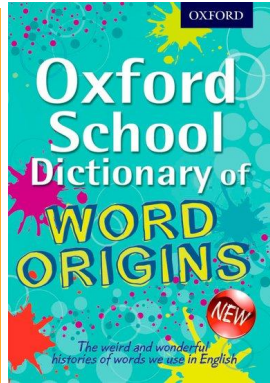
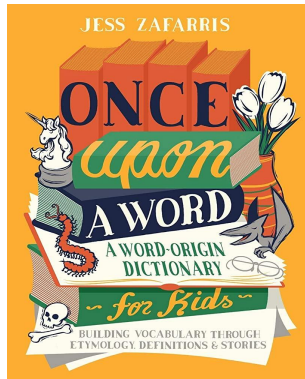
Hegland (2021) tells us there are three features of our spelling system to keep in mind as we explore English spelling:

1. Our spelling system prioritizes the consistent spelling of morphological elements
2. English spelling has evolved to differentiate homophones whenever possible to facilitate rapid comprehension
3. Written words show us connections to related words (using etymological markers).

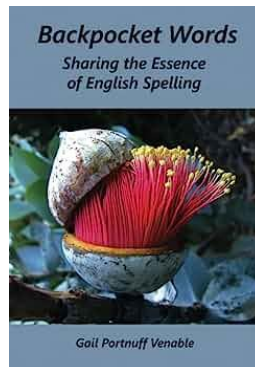
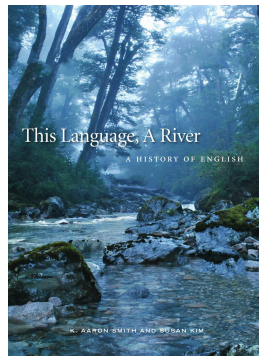
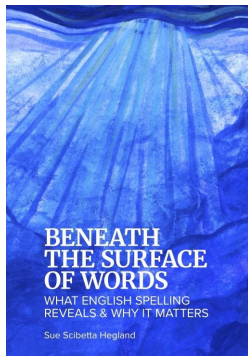
There are spelling conventions related to suffixing, particular graphemes (such as <i>, <y>, and <v>), and complete words (as opposed to clips). These are explored further in the additional resources related to the morphological concepts in each grade when applicable.

Resources

For Etymology



For Deeper Background Knowledge



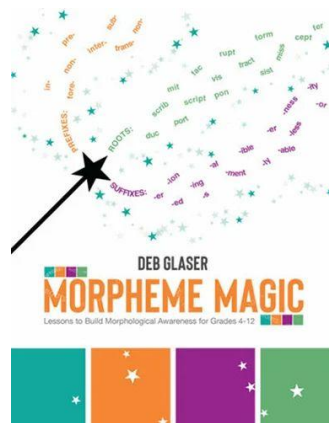
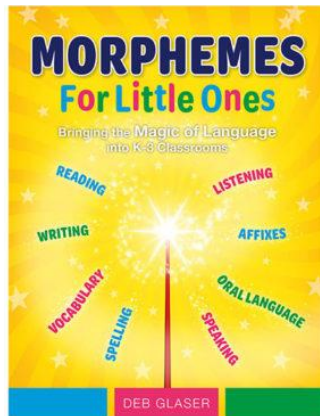
[Mary Beth Steven's Classroom Blog](#)

[The Real Spelling Online Toolbox](#) (subscription required)

[WordWorks Kingston](#) (Dr. Peter Bowers)

[Linguist Educator Exchange](#) (Gina Cooke)

General Resources & Classroom Practice



[The High Frequency Word Project](#)

[The Morphology Project](#)

[Engage with the Page](#) (Fiona Hamilton)

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For more information, please contact your local consortia office.

