

A Compendium of English Orthography

Items in blue are hyperlinks to the appropriate sections of the compendium and to files elsewhere on the site. One easy way to return to the location of the original hyperlink is to use the page thumbnails.

[A, an](#)

[Ablaut, umlaut](#)

[-able\), -ible\)](#)

[Accede, exceed, proceed, succeed](#)

[Access, excess](#)

[Accuse, excuse](#)

[Adapt, adopt](#)

[Addition, edition](#)

[Adjectives, regular and nonregular](#)

[Adoptions and adaptations](#)

[Adverbs](#)

[Advise, advice](#)

[Affect, effect](#)

[Affixes](#)

[Affluent, effluent](#)

[Affricate sounds](#)

[Alfred the Great](#)

[All and Its Compounds](#)

[Alley, ally](#)

[Alliteration](#)

[Alveolar sounds](#)

[Analogy](#)

[-ance\), -ence\); -ant\), -ent\)](#)

[Angel, angle](#)

[Angles, Saxons, Jutes, and Frisians](#)

[Anglo-Saxon, or Old English](#)

[Apostrophe](#)

[Artificial](#)

[Assimilation](#)

[Assure, ensure, insure](#)

[Back formation](#)

[Bases](#)

[Believe, belief](#)

[Beneficial, beneficiary](#)

[Beowulf](#)

[Bilabial sounds](#)

[Blends](#)

[British and American spelling](#)
[Capital and lowercase letters](#)
[*Capital, capitol*](#)
[Cardinal and ordinal numbers](#)
[Case](#)
[Caxton, William](#)
[Changing <y> to <i> and <i> to <y>](#)
[Chaucer, Geoffrey](#)
[Clauses and Sentences](#)
[Closed syllables](#)
[Code and Performance](#)
[*Compliment, complement*](#)
[Compound words](#)
[Concatenation](#)
[Concatenations](#)
[*Confident, confidant*](#)
[Conjunctions](#)
[*Conscious, conscience*](#)
[Consonant and vowel letters](#)
[Consonant letters and the sounds they spell](#)
[Consonant sounds](#)
[Content and meaning](#)
[Contraction](#)
[Conversions](#)
[*Council, counsel, consul, consult*](#)
[CVC# strings](#)
[*Decent, descent, dissent*](#)
[*Deficit*](#)
[Dental sounds](#)
[Derivation, derived forms](#)
[*Desert, dessert, deserts*](#)
[Dictionaries](#)
[Digraphs and trigraphs](#)
[Digraphs <ch, gh, ph, rh, sh, th, wh>](#)
[Diphthongs](#)
[Doublets and doublet equivalents](#)
[Doublets misspelled](#)
[Early Modern English](#)
[*Efficient, efficiency*](#)
[Elements](#)
[*Eminent, imminent*](#)
[*Envelope, envelop*](#)
[*-er\)01, -or\)2*](#)
[*Essay, assay*](#)

[Etymology](#)

[Evolution](#)

[Explication](#)

[*Excel, Excellent*](#)

[*Except, accept*](#)

[*Finally, finely*](#)

[Folk etymology](#)

[Fossils](#)

[French influence](#)

[French Lemon \(Stress Frontshift\) Rule](#)

[Frequentatives](#)

[Fricative sounds](#)

[Futhorc](#)

[Genitive](#)

[Germanic languages](#)

[Glides](#)

[Glottal sounds](#)

[Great Vowel Shift](#)

[Holdouts](#)

[Homonyms, homophones, homographs](#)

[Hyphen](#)

[<I> before <E>](#)

[*Illusion, allusion*](#)

[Imitative](#)

[Indo-European languages](#)

[Inflection, inflected forms](#)

[*Innocence, innocents*](#)

[Insulators](#)

[Intensifiers](#)

[Interdental sounds](#)

[*Its, it's*](#)

[*-ize\), -ise\)*](#)

[Jespersen, Otto](#)

[Johnson, Samuel](#)

[Labiodental sounds](#)

[Latin alphabet](#)

[Latinization](#)

[*Lie, lay*](#)

[Long vowels](#)

[Lose, loose](#)

[*Medal, metal, mettle, meddle*](#)

[Metaphor](#)

[Metonymy](#)

[Middle English](#)

[Minims](#)
[Missionaries](#)
[Misspellings](#)
[Mnemonic](#)
[Modern English](#)
[Morphemes and Morphophonemics](#)
[Mulcaster, Richard](#)
[Nasal sounds](#)
[Nonce Words](#)
[Norman Conquest](#)
[Norman scribes](#)
[Norse and Anglo-Norse](#)
[Noun plurals](#)
[Nouns](#)
[*Office, officer, official*](#)
[Old English, or Anglo-Saxon](#)
[Onomatopoeia](#)
[Open and closed syllables](#)
[*Oxford English Dictionary \(OED\)*](#)
[Palatalization](#)
[Palatal sounds and their spellings](#)
[Participles](#)
[Particles](#)
[Partridge, Eric](#)
[*Pastor, pasture*](#)
[*\(Per-, \(pre-*](#)
[*Personal, personnel*](#)
[Phonetic spelling](#)
[Plurals, regular and nonregular](#)
[Possessives](#)
[Prepositions](#)
[Prefixes](#)
[*Principle of Preferred Regularity*](#)
[*Principle, principal*](#)
[Procedures](#)
[Processes](#)
[*Quite, quiet, quit*](#)
[Recent, resent](#)
[Reduced vowels](#)
[Reduplication](#)
[Register](#)
[Runes](#)
[Schwa](#)
[Semantics and semiotics](#)

Sentences

Shakespeare

Shortening rules

Short vowels

Short Word Rule

Shudder, shutter

Silent final <e>, functions and deletion

Silent letters

Simple addition

Simplifications

Simplifications with lost [t], [l], and [p]

Soft and hard <c> and <g>

Spelling Bees

Spelling Demons

Spelling pronunciation

Standard Written English

Stems

Stress

Strings

Suffixes

Suffix -ic)1 Rule

Suffix -ity) Rule

Suffix Rules

Suppose, supposed

Syllabic consonants

Syllables

Synonyms, homonyms, antonyms, pseudonyms, heteronyms, acronyms

Third Syllable (or Third Vowel) Rule

Through, thorough

Triplets

Twinning

Use, used

Variant Spellings

VCCle vs. VCle strings

VCV vs. VCCV strings

VCV vs. VCCV contrasts

Velar sounds

Verbs: regular and irregular

Vikings

Voiced vs voiceless (unvoiced) sounds

Vowel lengthening and shortening

Vowel letters

Vowel sounds

V.V strings

[Wear, ware, where; were, we're](#)

[Webster, Noah](#)

[Wessex and the West Saxon dialect](#)



Further sources: The sources of further information are limited for the most part to three: (i) David Crystal's *An Encyclopedic Dictionary of Language and Languages* (Blackwell, 1992) (hereafter *EDLL*), (ii) *The Oxford Companion to the English Language*, ed. Tom McArthur (Oxford, 1992) (*OCEL*), and (iii) my *American English Spelling* (Johns Hopkins, 1988) (*AES*). *EDLL* and *OCEL* are arranged alphabetically with headings the same as or close to those here. All three often contain references to sources of further information.

Symbols Used: Letters and spellings are enclosed in arrowhead brackets: <a>, <cat>. Sounds and pronunciations are enclosed in square brackets: [ǣ], [kǣt]. Definitions are enclosed in double quotes. Prefixes are marked with a left parenthesis and trailing hyphen: (*pre-*, (*non-*; suffixes with a leading hyphen and a right parenthesis: *-ing*)₁, *-ed*)₁. The unstressed, reduced sound schwa is represented with [ə]. The analyses, or explications, of written words are underlined, with element boundaries marked with plus signs: *catfish* cat₁+fish₁ and deletions with an overstruck / diagonal. In phonetic respellings primary word stress is indicated with a following high vertical, secondary with a low vertical, and syllable boundaries that have no stress marks are indicated with mid dots: [flā^hmĩng], [big_hhed^lid], [ə·bǔv^l]. The index numbers on some prefixes, bases, suffixes, and particles – for instance, (*in*₂-, *-ed*)₁, *ag*₅ – identify members of sets of homographs. To determine which element or particle is being referred to, consult the [Prefixes](#), [Bases](#), [Suffixes](#), or [Particles](#) datatable in the Lexis database on this site. Misspellings are marked with a leading asterisk – *misspellings.



A, an; the. *A* and *an* are indefinite articles, normally used to refer to something being mentioned for the first time, while the definite article *the* is normally used to refer to things that were mentioned earlier or that can be assumed. *A* is used before nouns that start with a consonant sound, and *an* is used before nouns that start with a vowel sound – *a berry* but *an orange*. The important thing is the first sound of the noun, not necessarily the first letter – thus, it's *an hour* (with the initial silent <h>), not **a hour*, and *a unit* (with the initial consonant [y] sound), not **an unit*. See <h> and <u>.

Ablaut, umlaut. In German *laut* means “sound” and is related to our word *loud*; the German *ab* means “off” and *um* means “alteration.” *Ablaut* means

a change in vowel sound, often to indicate a change in grammatical function. It occurs in several [Indo-European languages](#), including English, as in *man, men; goose, geese; mouse, mice; sing, sang, sung*. See [Strong verbs](#) and [Plural nouns](#). *Umlaut* has two senses: (i) a modification in a vowel sound, and (ii) a mark, sometimes called *dieresis* or *diæresis*, consisting of two dots placed above a vowel to show that modification, as in German singular *mann* “man” vs. its plural *männer* “men”, reflected in English *man* vs. *men*. An umlaut, or dieresis, is also sometimes used to indicate that a vowel is not silent, as in the surname *Brontë*.

-able), -ible). Since these two [synonymous](#) suffixes are [homophones](#), it can be hard to know which one to use. Although there are no reliable rules for knowing when to pick one over the other, these three observations can help: (i) The suffix *-able*) is about six times more common than *-ible*), so when in doubt, choose *-able*). (ii) [Verbs](#) that end with *-ate*)¹ and/or form nouns with *-ation*) take *-able*) – *imitate, imitable; civilize, civilization, civilizable*. And (iii) since *-able*) and *-ible*) come late in their words, the correct spelling is easy to find in a dictionary. Two other points, though neither raises any problems for spellers: A small, and shrinking, number of words can take either *-able*) or *-ible*) – as in *ascendable, ascendible*. And a very small number of words with *-able*) have forms with and without [final <e> deletion](#): *likeable, likable; liveable, livable; moveable, movable; sizeable, sizable*. This confusion is probably due to *<able>* sometimes being seen not as the suffix *-able*) but as the etymologically unrelated word *able*. With *able* the word formed would be a [compound](#), and compounds don't require final *<e>* deletion.

Accent. *Accent* has two senses important to us: The first is a characteristic or typical pronunciation, as in “a Brooklyn accent” or “a Spanish accent.” The second is [stress](#).

Adapt, adopt. The prefix (*ad-* carries the sense “to, toward.” The base *apt*¹ means “to fit” and the base *opt*² means “to choose.” So *adapt* (ad+apt¹ means “to fit something to something else,” and *adopt* (ad+opt² means “to choose something.”

Addition, edition. The prefix (*ad-* carries the sense “to, toward.” The prefix (*e-*, a contraction of (*ex-*, carries the sense “away, out.” The base *dit*¹ means “give, put, bring.” The suffix *-ion*)¹ forms [nouns](#). *Addition* (ad+dit¹+ion)¹ thus means something like “a giving to,” and *edition* (e+dit¹+ion)¹ means “a putting or bringing out.”

Adjectives, regular and nonregular. Adjectives are usually defined as words that modify a [noun](#). Another kind of definition is “Any word that does

not end in -'s) but will fit into this blank: **The _____ thing seemed okay.**"

Regular adjectives can take the comparative and superlative inflectional **suffixes** *-er, -est* – as in *dark, darker, darkest*. But in many, or all, cases the comparative and superlative can also be shown periphrastically with *more* and *most* – *more dark, most dark*. There are three kinds of **nonregular** adjectives:

- those that show comparative and superlative only periphrastically, as in *admirable, more admirable, most admirable* but not **admirabler, *admirablest*;
- those that have comparative and superlative forms with bases different from the positive form, as *good, better, best; bad, worse, worst; far, further, furthest*; and
- those that only rarely or never have comparative or superlative forms – for instance, ordinals like *eighteenth*; possessive adjectives like *her, his, your, my, our*; and certain absolutes like *every, subsequent, prior*.

Adoptions and adaptations. With words, I prefer the notion of adopting rather than borrowing, since when you borrow something, you intend to return it, but when you adopt something, you intend to keep it, as we do when we adopt words from other languages. Many words are adopted without any change in spelling – *poi, kangaroo, scaloppini, soufflé*, and the like. But usually we make changes, often minor, sometimes major, in spelling. These I call adaptations. A small sample of the tens of thousands in English, with the language from which each was adapted:

block < French *bloc*
buckaroo < Spanish *vaquero*
budget < Old French *bougette*
cashew < Portuguese *acajú*
cream < Old French *cresme*
hoosegow < Spanish *juzgado*
jerky < Spanish *charqui*
jolly < Old French *jolif*
ransack < Old Norse *rannsaka*

See [Evolution](#) and *AES*, pp. 17-20.

Adverbs. Adverbs come in different shapes and have several different functions. They can modify

- [verbs](#): He spoke **loudly**.
- [adjectives](#): He is **extremely** loud.
- other adverbs: He spoke **very** loudly.
- an entire clause or sentence: **Truthfully**, he's a loudmouth.

When they modify adjectives or adverbs, adverbs are usually

intensifiers, like *extremely*. Most adverbs end with the **derivational suffix** *-ly*¹ which turns adjectives into adverbs, as in *loudly*, *extremely*, and *truthfully*. Like adjectives, most one-syllable adverbs form their comparative and superlative with *-er*² and *-est*¹: *slow*, *slower*, *slowest*. But adverbs two or more syllables long form their comparative and superlative periphrastically with *more* and *most*: *loudly*, *more loudly*, *most loudly*.

Advise, advice. The prefix (*ad-* means “to, toward.” The bases *vice*³, which forms nouns, and *vise*², which forms verbs, originally meant “see, look,” but in Latin they developed a meaning like “my view or opinion is.” Remember that <s> often spells the sound [z] as it does in *advise*, but <c> always spells [s] before <e> as it does in *advice*.

Affect, effect. These two **homophones** (and near **homographs**) are found on most lists of spelling demons. Usually *affect* is a **verb** – as in “Caffeine affects a lot of people.” And usually *effect* is a **noun** – as in “Caffeine doesn’t have much of an effect on me.” To affect is to cause while an effect is the result. There may be some help in remembering that there’s an <a> and an <e> in both *affect* and *cause*. However, an affect “feeling, emotion” is also a noun – as in “The defendant revealed no affect to the jury’s verdict”; and *effect* can be a verb – as in “The new owner will effect a total change in the company.” Mercifully, these final two uses are quite rare: *affect* as a noun occurs mainly in the psychological **register**, and *effect* as a verb tends to be rather formal.

All and Its Compounds. The bound base *al*⁵ is a **contraction** of *all*¹ “all, entire” – as in *almighty*, *alone*, *also*, *although*, *almost*, *wherewithal*. But some words with *al*⁵ have partners with *all*¹, which can lead to spelling problems. For instance, we have *always* “invariably, forever” – as in “She’s always late” and *all ways* “in each and every way” – as in “I’ve tested it in all ways.” Other examples: *already* “by this time, so soon” vs. *all ready* “each and every one is prepared”; the adverb *altogether* “entirely” vs. the adjective phrase *all together* “in a single group.” And this more sneaky pair: the adjective phrase *all right* vs. the common but still nonstandard **alright*. See [Excel, excellent](#).

Affixes. Affixes are bound elements that can be added to **stems** to change their function or sense. In English the two kinds of affixes are **prefixes** and **suffixes**.

Affricate sounds. Affricates are **consonant sounds** that begin with a **stop** and end with a **fricative** – for example, the affricates [j] = [dʒh], [ch] = [tʃh], as in *judge* and *church*.

Alfred the Great. From 871-899 Alfred was the Christian king of Wessex, one of the seven kingdoms of early England, located south and west of the Thames River. He lived from 849-899. While king he reorganized military strategy and directed the defeat of the early [Viking](#) raiders. The dialect of Wessex was West Saxon, and Alfred also established a school in his court that taught both Latin and the West Saxon dialect of [Old English](#). To further education in his kingdom, he had several important works translated from Latin into West Saxon, he himself translating some. His emphasis on translation into English helped make West Saxon very important in the development of and our understanding of early English.

Alley, ally. These two words are near [homographs](#) though different in pronunciation. *Alley* explicates to [all+ey](#)². The base *all*⁴ means “go, walk” and the suffix *-ey*² forms nouns. So an alley is where one walks or goes to some place. *Ally* explicates to [ad+l+ly](#)². The prefix (*ad-* means “to, toward,” and the base *ly*² means “bind, join,” so an ally is one to whom you are bound or joined.

Alliteration. Alliteration is the repetition of sounds – usually [consonant](#) sounds – at the beginning of words and in [stressed syllables](#). Alliteration is very common in poetry (as in Wallace Stevens’ “**W**inding across **w**ide **w**ater, **w**ithout sound./ The day is like **w**ide **w**ater, **w**ithout sound.” It was the basis of [Old English](#) poetry, as in [Beowulf](#). It is also common in popular phrases like “dead as a doornail.”

Alveolar sounds. Alveolars, or dentals, are [consonant sounds](#) articulated with the front of the tongue near or touching the alveolar ridge behind the upper teeth – [d, t, z, s, n, l, r].

Analogy. In the most general sense, analogy is the perception of similarity in the midst of difference. Analogy is perhaps the most important way in which the mind searches for unity in the din and roar of experience, linguistic and otherwise. It underlies [metaphor](#). In spelling and vocabulary it leads to users changing the sound or spelling or both of a word to make it more similar to a more regular or more familiar form—as when French *carriole* “a small covered carriage” is changed by [folk etymology](#) to *carryall* or when [Middle English](#) *couthe*, *coude* is respelled to *could*, making it more similar to the parallel forms *should* and *would* (which in Middle English were *scholde* and *wolde*). (*EDLL, OCEL, AES*, pp. 10-12)

-ance), -ence); -ant), -ent). The suffixes *-ance*) and *-ence*) can create problems because they are [homophones](#) pronounced [əns] and both form [nouns](#), usually abstract. There are no simple rules for knowing when to use one and when the other, but these two hints may help some:

- If you can add [enshəl] (spelled <ential>) to the **stem** and get a recognizable word, the [əns] is *-ence*). For instance, if you can't decide between <confidence> and <confidance>, and you replace the [əns] with [enshəl], the result is *confidential*, and the stressed [ě] sound tells you that the [əns] suffix is *-ence*).

- Nouns that end in *-ence*) or *-ance*) very often have partner **adjectives** that end in either *-ent*) or *-ant*) – as in *confidence* and *confident*. If a noun ends in *-ence*) its partner adjective will always end in *-ent*). If a noun ends in *-ance*), its partner adjective will end in *-ant*): – as in *defiance* and *defiant*.

Angel, angle. With these two the main question is where to put that <e>, and the answer is straightforward: In *angel* that <e> has to come right after the <g> to make it a **soft <g>**, [ān'jəl], but in *angle* the <g> is hard, [ān'gəl], so the <e> cannot come right after it.

Angles, Saxons, Jutes, and Frisians. The Angles, Saxons, Jutes, and Frisians were Germanic tribes from northern Europe that invaded Britain in the 5th and 6th centuries. They were all from the Jutland peninsula, roughly modern Denmark, and nearby coastal lands and islands. The Jutes were from northernmost Jutland, the Angles from just south of them. The Saxons and Frisians were south of the Angles, with the Frisians primarily occupying the low coastal areas of the North Sea, essentially modern Belgium and Holland, while the Saxons were primarily on the coast of the western Baltic Sea and areas south in present day Germany. Originally the Saxons and others had been invited by the Britons to come as mercenaries, helping fight against northern tribes. Thereafter it became more of a full-fledged migration.

The name *Angles* is the source of the name *England*; *Angle* and *Saxon* the source of *Anglo-Saxon*. The language of the Frisians is the language closest to [Old English](#).

Apostrophe. Apostrophes are part of spelling and they have quite specific uses:

- First, most of the times they work with <s> to form possessive adjectives, as in *Jack's dog*. But there are no apostrophes in **possessive pronouns**: *The dog wagged his tail* and *the dog wagged its tail*. And the same is true of the other possessive pronouns *hers*, *ours*, *theirs*, and *yours*.

- Second, apostrophes are used in **contractions** like *don't*, *we're*, and *couldn't*. Notice that in the **homonyms** *its* and *it's*, *its* is a possessive pronoun with no apostrophe, while *it's* is a contraction with one. (A **mnemonic**: “There's no apostrophe in the possessives *his* and *its*.)

- Third, and quite rarely, apostrophes are used to form **plurals** of letters and numbers: *three c's*, *five 4's*.

In Greek and Latin an apostrophe was a turning away, and today we use the word *apostrophe* to refer to the act of speaking directly to an absent or imaginary listener.

Artificial, beneficial, beneficiary, deficit, efficient, efficiency, office, officer, official -- and others. Each of these nine CommonWords contains a [base](#) that means “to make, do” – sometimes spelled *fic1*, sometimes *fice1*:

artificial = arti+fic/e1+ial
beneficial = bene+fic1+ial
deficit = [de+fic1+it]2
efficiency = [e/x+f1+fic1+iency]
efficient = [e/x+f+fic1+ient]
office = of2+fice1
sacrifice = sacri+fice1
sufficient = [su/b+f+fic/e1+ient]

In *artificial* the base *arti* means “skill, craft”; in *beneficial* *bene* means “good, well”; in *office* *of2* means “work, produce”; and in *sacrifice* *sacri* means “sanctify, make sacred.” In *deficit* the [prefix](#) (*de-* carries the sense “reversal, negation”; (*ex-* has the older meaning “out, beyond” but in *efficient* and *efficiency* it’s an intensifier meaning “thoroughly, beyond the usual”; (*sub-* has an older meaning of “below, under” but in *sufficient* and *sufficiently* it carries the sense “nearly, barely.”

CommonWords also contains the following four related *fic1* or *fice1* words: *beneficiary*, *efficiency*, *officer*, and *official*. The larger Lexis database contains 118 words with *fic1* or *fice1*, including *aficionado*, *artifice*, *benefice*, *coefficient*, *deficient*, *edifice*, *efficacious*, *immunodeficiency*, *officious*, *officiate*, *orifice*, *proficient*, *superficial*.

Notice that in *fic1* and *fice1* the [<c>](#) spells the [alveolar fricative sound](#) [s] before

<e, i, y> if there is no [vowel](#) following the <e, i, y>, as in *office* or *officer*. But it spells the [palatal fricative](#) [sh] if there is an [unstressed](#) vowel immediately after the <e, i, y>, as in *official*.

Assimilation. Assimilation is a historical [process](#) that simplifies pronunciation by changing one of two adjacent sounds to make it more similar to the other. The spelling often changes to agree with the changed pronunciation. In English, assimilation is particularly common in consonants at the ends of Latin prefixes.

In **full assimilation** the two sounds merge into one, though the

spelling does not always change: The full assimilation is reflected in the changed spelling of *affair* (ad+f+fair, but though the pronunciation is simplified, there is no change in the spelling of *adjust* (ad+just pronounced [ə·just¹]). A prefix can have different patterns of assimilation in different settings. For instance, the bilabial sound [m] and its spelling <m> in the prefix (*com-* do not change in front of the bilabial sounds [b], [m], and [p]: the prefix and stem join via **simple addition** – *combine*, *commit*, and *compel*. But the [m] and <m> assimilate fully before [l], [n], and [r]: *collect*, (com+l1+lect⁵; *connect*, (com+n1+nect; *correct*, com+r1+rect.

And most of the time the sound and spelling in (*com-* undergo **partial assimilation**, with [m] and <m> changing only partially, to [n] and <n> as in *concept*, (com+n1+cept and in *condemn*, *confess*, *congest*, *conjure*, etc. The partial assimilation of (*com-* to (*con-* eases pronunciation by moving the points of articulation closer together for the final sound of the prefix and the first sound of the stem. While the [m] at the end of (*com-* is a bilabial sound pronounced out at the two lips, the sounds spelled by the letters <c>, <d>, <f>, <g>, <j>, <q>, <s>, <t>, and <v> are all pronounced in places in the mouth closer to where the alveolar sound [n] is pronounced.

Assimilation is still with us: If you listen carefully, the word *input* is often pronounced not [in¹pūt₁] but rather [im¹pūt₁], with assimilation of [n] to [m] before [p]. The *OED* and *Webster's 3rd Unabridged* even list the variant spelling *imput*. (*EDLL*, *OCEL*, *AES*, pp. 177-98)

Assure, ensure, insure. These three words have very similar senses. All have *sure* as their base – (a/d+s1+sure, (en1+sure, (in3+sure – and all carry the older sense of *sure*: “free from danger or harm.” *Insure* and *ensure* are essentially interchangeable, though *insure* is more common in **American English**, especially in the business sense. *Assure* carries the base *sure*'s more modern sense of “certain, confident.” These three stem words can take on a number of affixes to form verbs, nouns, adjectives, and adverbs – for instance, *assurance*, *assuredly*, *coinsurance*, *ensurer*, *ensuring*, *insurability*, *insurable*, *insurance*, *insuror*, *reassurance*, *reassure*, *reinsure*, *underinsured*, *uninsurable*, *unreassuringly*.

The stem word *sure* also has several different **inflected** and **derived** forms and **compounds**: *cocksure*, *surefooted*, *surely*, *sureness*, *surest*, *surety*, *unsure*.

Back formation. Back formation is the formation of a new word by taking away part of an older, longer word. For instance, the recent word *lase* “to operate a laser” is a back formation from *laser*, which is itself an **acronym** contracting “*light amplification by stimulated emission of radiation*.” An exact parallel is *tase* from *Taser*, a contraction of “*Thomas A. Swift's Electric Rifle*,” after Tom Swift, the hero of youth fiction. English actually

has many back formations: the on-line *OED* lists 810, including *automate* from *automated* or *automation*, *burgle* from *burglar*, *gruntled* from *disgruntled*, and *pea* from *pease*.

Bases. A word's base is the element that contains its core of **content** and can have **prefixes** and **suffixes** added to it. In the word *uncounted* the base is *count* (un+count+ed). Bases like *count* that can stand free as words are called **free bases**. Bases that cannot stand free as words, like *+fect* in *affect*, *confection*, *defective*, *effective*, etc., are called **bound bases**. (*OCEL, AES*, pp. 32-39).

Believe, belief. The bases *lieve* and *lief* “care, love, faith” are variants of one another. The prefix (*be-* is an **intensifier**. This is the same *lief* that is the old-fashioned word *lief* “dear, willing.” Notice other <f> and <v> pairs like *half, halves; wolf, wolves, elf, elves; shelf, shelves*. In [Old English](#) the letter <f> spelled the sound [v] when it came between two **voiced** sounds, such as vowels, and it spelled [f] everywhere else.

Beowulf. *Beowulf* is the most celebrated literary work of the **Old English** period, probably written sometime in the 5th or 6th century. It is an epic poem in alliterative verse – notice the **alliteration** of <g>'s and <d>'s in the first line of the sample below. Blending fiction and fact, the poem tells of the feats of Beowulf, a Geat hero from southern Sweden who comes to the aid of Hrothgar the king of the Danes, and fights and kills the monster Grendel and his dam. Later Beowulf becomes king of the Geats and dies in a fight with a fire dragon. The language of *Beowulf* is so different from Modern English as to be for modern readers essentially a foreign language. These are the opening lines:

Hwæt! Wé Gárdena in géardagum
béodcyninga þrym gefrúnon
hú ðá æþelingas ellen fremedon.

(Listen! We of the Spear-Danes in the days of yore,
of those clan-kings heard of their glory
how those nobles performed courageous deeds.)

Bilabial sounds. Bilabials are **consonant sounds** articulated by pressing the two lips together – [b, p, m], as in *bob, pop, mom*.

Blends. Blends are strings of two or three consonant letters that spell two or more consonant sounds in the same syllable. Some blends are word-initial, more are word-final, a few are both:

<bl> = [bl] as in *blue*
<chr> = [kr] as in *chronicle*
<cl> = [kl] as in *clue*
<cr> = [kr] as in *crew*
<ct> = [kt] as in *act*
<dr> = [dr] as in *draw*
<fl> = [fl] as in *flaw*
<fr> = [fr] as in *from*
<ft> = [ft] as in *soft*
<gl> = [gl] as in *gloom*
<gr> = [gr] as in *groom*
<ld> = [ld] as in *sold*
<lf> = [lf] as in *shelf*
<lt> = [lt] as in *belt*
<mp> = [mp] as in *camp*
<nch> = [nch] as in *branch*
<nd> = [nd] as in *brand*
<nk> = [ŋk] as in *sank*

<nt> = [nt] as in *sent*
<nth> = [nth] as in *tenth*
<pl> = [pl] as in *place*
<pr> = [pr] as in *price*
<pt> = [pt] as in *slept*
<qu> = [kw] as in *quarter*
<rch> = [rch] as in *march*
<rd> = [rd] as in *hard*
<rk> = [rk] as in *mark*
<rl> = [rl] as in *girl*
<rm> = [rm] as in *arm*
<rn> = [rn] as in *barn*
<rt> = [rt] as in *short*
<rth> = [rth] as in *birth*
<sc> = [sk] as in *scale*
<sch> = [sk] as in *school*
<scr> = [skr] as in *scrape*
<shr> = [shr] as in *shrill*

<sk> = [sk] as in *ask*
<sl> = [sl] as in *sled*
<sm> = [sm] as in *small*
<sn> = [sn] as in *sneak*
<sp> = [sp] as in *spoke*
<sph> = [sf] as in *sphere*
<spl> = [spl] as in *splash*
<spr> = [spr] as in *spring*
<squ> = [skw] as in *squeak*
<st> = [st] as in *last*
<str> = [str] as in *straw*
<sw> = [sw] as in *swell*
<thr> = [thr] as in *throw*
<tr> = [tr] as in *true*
<tw> = [tw] as in *twin*
<tz> = [ts] as in *quartz*

British and American spelling. What we call British spelling was essentially defined by [Samuel Johnson](#) in his *A Dictionary of the English Language* (1755), and American spelling was essentially defined by [Noah Webster](#) in his *An American Dictionary of the English Language* (1828). Johnson looked to tradition and etymology for his judgements of correct spelling; Webster looked more to his sense of pattern and economy. Three differences between the two spelling systems often cited are (1) the British *-our* vs. the American *-or*, as in *humour*, *humor*; (2) the British *-re* vs. American *-er*, as in *centre*, *center*; and (3) the British tendency to [twin](#) final unstressed consonants that American leaves untwinned, as in *traveller*, *traveler*. However, there is considerable lack of agreement among dictionaries, experts, and general readers and writers whether these three distinctions – and all the others often cited in word lists – are strictly British or American. The British and American spelling systems have evolved and coevolved over the centuries to the point that the distinction between them is fuzzy and elusive. For more on this distinction, see my “The Evolution of British and American Spelling” in *The Routledge Handbook of the English Writing System* (V. Cook and D. Ryan, eds.) London & New York: Routledge, 2016. pp. 275-292).

Capital and lowercase letters. Capital letters are called capital in the sense of “chief, most important.” Lowercase letters are so called because back in the days of lead type, type setters in print shops stored them in the lower case or rack, as compared with the uppercase, or capital, letters. The use of capital letters in English is quite complicated; the index to the 13th edition of the *Chicago Manual of Style* lists over three dozen references to it. What follows is a simplification. Capital letters are used at the beginning of:

- Sentences: *The rain was pouring down.*
- Proper names: *Lou Gehrig, New York, Grand Canyon, Broadway.*

- Names of deities: *God, Jesus, Jehovah, Allah, Buddha, Zeus.*
- Lines of verse, if the poet capitalized them:

*Just as my fingers on these keys
Make music, so the selfsame sounds
On my spirit make a music, too.*

- Most words in the titles of articles and books: *Pride and Prejudice.*
- The first person singular pronoun *I.*
- *President* when it refers to the President of the United States.

Capital, capitol. The base in both of these words is *capit* “head, chief.” In *capital* the suffix *-al* forms adjectives which are often **converted** to serve as nouns, so the adjective *capital* “main, important” led to the noun *capital* “money.” *Capitol* “the building of the legislature” is from *Capitoline*, the highest of the seven hills of ancient Rome, on which the temple of Jupiter was located. Unlike *capital*, *capitol* is not used as an adjective. A useful **mnemonic**: “The capitol has a dome,” with the <o> in *dome* helping with the <o> in *capitol*.

Cardinal and ordinal numbers. Cardinal numbers are the ones with which we count: 1, 2, 3, 4, etc. – or *one, two, three, four.* Ordinal numbers indicate places in a numerical order: 1st, 2nd, 3rd, 4th, etc. – or *first, second, third, fourth.* *Cardinal* comes from a Latin word that meant “principal, most important.” *Ordinal* is related to the word *order*.

Case. Different cases show how a given word relates to other words in a sentence. Modern English has a quite simple case system, relying more on word order and prepositions to show these relationships. In English only nouns and pronouns have different cases. Except for adding *-’s*) to indicate the possessive, or genitive, nouns do not change form to show case. The changes in form for pronouns are more complicated. Unchanged nouns can serve these four cases:

(1) the **nominative**, or subjective – that is, the case of the subject of the verb, as in *My aunt sang my uncle a song* – and

(2 and 3) the two **objective** cases – that is, the cases of the two objects of the verb: The **accusative**, the case of the direct object – the direct recipient or product of the action of the verb: *My aunt sang my uncle a song*; and the **dative**, the case of the indirect object – the person or thing indirectly affected by the action of the verb: *My aunt sang my uncle a song*. Direct objects answer the question “What?” of the verb: Sang what? Sang a song. Indirect objects answer “To whom or what?” Sang to whom? Sang to my uncle.

(4) the **possessive** or genitive case, which, broadly, shows possession and is usually marked with the addition of the suffix *-’s*), as in *My aunt’s voice* or periphrastically – that is, by the use of a function word like the preposition *of* in *The voice of my aunt*.

The changes in form to show pronoun cases are more complicated:

Nominative	Accusative	Dative	Genitive
<i>I</i>	<i>me</i>	<i>me</i>	<i>my</i>
<i>you</i> (singular)	<i>you</i> (singular)	<i>you</i> (singular)	<i>your</i> (singular)
<i>he, she, it</i>	<i>him, her, it</i>	<i>him, her, it</i>	<i>his, her, its</i>
<i>we</i>	<i>us</i>	<i>us</i>	<i>our</i>
<i>you</i> (plural)	<i>you</i> (plural)	<i>you</i> (plural)	<i>your</i> (plural)
<i>they</i>	<i>them</i>	<i>them</i>	<i>their</i>
<i>who</i>	<i>whom</i>	<i>whom</i>	<i>whose, of whom</i>
<i>which</i>	<i>which</i>	<i>which</i>	<i>whose, of which</i>
<i>that</i>	<i>that</i>	<i>that</i>	<i>of that</i>
<i>those</i>	<i>those</i>	<i>those</i>	<i>of those</i>

Caxton, William. In 1476 William Caxton established the first printing press in Britain and produced his first book, an edition of [Chaucer's *The Canterbury Tales*](#). During the 15 or so years of his career, he printed over a hundred books, mostly works in foreign languages that he and others translated into English. His work was part of the development of [Standard Written English](#) and the growing separation between the spoken and written word. It is likely that his tendency to use French words in his translations added to the heavy influence of French on [Early Modern English](#). See [French influence](#).

Changing <y> to <i> and <i> to <y>. You may be familiar with the old jingle that ends “change the <y> to <i> and add <es>.” But the replacement is broader than that: When we add any [suffix](#) that starts with a [vowel](#) to a stem that ends in the letter <y> immediately following a [consonant](#), we change the <y> to <i> and add the suffix – for instance, *merry* + *er*)02 = *merry*+*i*2+*er*)02 = *merrier*.

The replacement does not take place if the <y> is preceded by a vowel because in such cases the <y> is part of a vowel [digraph](#), and digraphs are routinely exempted from such rules: *buy* + *er*)01 = *buy*+*er*)01 = *buyer*.

One complication: We add a suffix that starts with an <i> to a stem that ends in a <y> via simple addition: *try*+*ing*)1 = *trying*. But when the suffix starts with any other vowel, and the <y> has a consonant right in front of it, we again change the <y> to <i>: *try*+*i*+*ed*)1 = *tried*.

Just the reverse of this procedure is also true: When we add a suffix that starts with the letter <i> to a stem that ends <ie>, we change the <i> to <y> and delete the <e>: *die* plus *-ing*) = *di*∅1+*y*4+*ing*)1 = *dying*. But when we add a suffix that starts with any other vowel, we just delete the final <e>: *die* + *ed*) = *di*∅1+*ed*)1 = *died*.

Chaucer, Geoffrey. Geoffrey Chaucer (1340?-1400) was the greatest poet of the [Middle English](#) period. His work has had an immense influence on the development of English poetry – especially his use of vernacular English and of various poetic forms and rhythms, some of which he developed. His most famous work is the *Canterbury Tales*, a series of short verse stories told by a group of pilgrims traveling to the cathedral in Canterbury “the hooly blisful martir for to seke.” His language is more accessible to modern readers than is [Old English](#) due to the evolution of the language during the intervening centuries. The “General Prologue” opens:

Whan that Aprill with his shoures soote
The droghte of March hath perced to the roote,
And bathed every veyne in swich licour
Of which vertu engendred is the flour

(When that April with his sweet showers
The drought of March has pierced to the root
And bathed each vein in such liquor
Of whose power engendered is the flower)

Clauses and Sentences. A clause is a string of words that contains a **subject** and a **predicate**. Clauses come in a somewhat bewildering array of types, but in the most basic sense we can say that the subject of a clause is a [noun](#) phrase that refers to the actor – the doer of an action – and the predicate contains a [verb](#) phrase that refers to that action. Thus in the clause “The neighbor’s dog barked all night” the subject is the noun phrase “the neighbor’s dog” built around the noun *dog*, and the predicate is the verb phrase “barked all night” built around the verb *barked*. A **main**, or **independent**, **clause** can stand free as a sentence; a **subordinate**, or **dependent clause** cannot. Subordinate clauses acting as adverbs are usually introduced by a [subordinating conjunction](#): “**because he wanted in out of the rain.**” Subordinate clauses can also act as nouns (“He said **that he wanted to go home**) or as [adjectives](#) (“The man **who is sitting in the back row** is her father.”)

Clauses can combine to form several kinds of sentences:

- A single main clause forms a **simple sentence**: “The neighbor’s dog barked all night”
- Two or more main clauses form a **compound sentence**: “The neighbor’s dog barked all night, and I didn’t sleep a wink.”
- A main clause and a subordinate clause form a **complex sentence**: “The neighbor’s dog barked all night because he wanted in out of the rain.”
- Two or more main clauses and one or more subordinate clauses form a **compound-complex sentence**: “The neighbor’s dog barked all night because he wanted in out of the rain and I didn’t sleep a wink.” *OCEL*.

Closed syllables. Syllables that end with a [consonant sound](#). See [Syllables](#).

Code and Performance. *Code* is the slowly changing system of abstract categories, distinctions, and relationships that structure the English language – including its spelling. It is the current set of rules governing the game of English. *Performance* is the game itself, as people use code in concrete and particular acts of speaking and listening, writing and reading. Actually code exists in two ways: First, it is the universal, highly abstract, and as yet rather mysterious, set of rules and patterns that inform our language. Second, in addition to this highly abstract and objective code, there are the particular and subjective versions of the code in the minds of the individual users of English. These individual codes reflect the amount of the universal abstract code that individuals have been able to internalize from their particular experiences with the language, its users, and the world. The interaction between the abstract and objective code and the concrete and subjective individual codes in acts of performance drives the [evolution](#) of the language. For more on “Code and Performance” see [Orthography as an Evolving Complex System](#) on this website.

Comma, coma. The [base](#) of *comma* in *comm2* “beat, strike, piece cut off, short piece of a sentence.” The base of *coma* is *com3* “tired, deep sleep.” *Coma* and *comma* are a good instance of the [VCV vs. VCCV contrast](#).

Compliment, complement. *Compliment* “praise” is related to *compliant*, “to act according to another’s wish”, which used to mean “polite” – a reminder of that <i> in *compliment*. *Complement* means “to complete”, a reminder of that first <e>.

Compound words. A compound word is a word that contains two or more [stems](#). The most easily recognized compounds contain two or more words, or free stems, such as *popcorn*, [pop+corn](#); *blackbird*, [black+bird](#); *congressman*, [\(corn+n+gress+man](#); *notwithstanding*, [not+with+stand+ing](#)). This type of compound occurs in three spellings: closed (*firecracker*, *fireman*), open (*fire station*, *firing squad*), and, less commonly, hyphenated (*fire-eater* and the adjective *fire-and-brimstone*). There are several generalizations for suggesting when to choose which one of these three spellings, but so far none are very useful, and the best advice is to check a reputable dictionary.

A second type of compound contains one or more [bound bases](#) plus one or more free stems: *biofeedback*, [bio2+feed+back1](#); *electromagnet*, [electro+magnet](#); *hydroelectric*, [hydro+electric](#); *gasohol*, [gas1+ohol](#); *ionosphere*, [iono+sphere](#); *monoxide*, [mon3+oxide](#); *petrochemical*, [petro+chemical](#); *thermodynamics*, [thermo+dynamics](#). Special cases are compounds that contain a free base plus a contraction: *can't*, *'twas*, *he'd*, *she'll*.

A third type contains two or more bound bases and no free base: *moped*, [mo2+ped6](#); *equilibrium*, [equi1+libr1+ium\)2](#); *centrifuge*, [centri+fuge](#); *hydrogen*, [hydro1+gen6](#); *isotope*, [iso+tope1](#); *litmus*, [lit3+mus2](#); *positron*, [posi2+tron1](#); *telemetry*, [tele1+metr1+y\)3](#); *gastroenterologist*, [gastro+enter2+olog+ist\)1](#). Such compounds with bound bases are most common in the technical and scientific registers.

Concatenation. *Concatenation* means a linking together. It comes from Latin, with the earlier meanings “bind, chain.” In orthography concatenation has to do with how sounds and letters link together, as into [blends](#), [doublets](#), [doublet equivalents](#), [digraphs](#), [trigraphs](#), and [simplifications](#), and with things that occur when elements concatenate: [simple addition](#), [twinning](#), [silent final <e> deletion](#), [assimilation](#), [changing <y> to <i> and <i> to <y>](#).

Concatenations. Some [concatenations](#) of sounds and letters can pose special problems for spellers. They can look weird and be hard to pronounce, so sounds and letters in the middle of them can be easily lost – or at least misplaced. This is a case where [explication](#) can help by unfolding the word. The following are some examples of more complex concatenations and how they can be unfolded via explication:

<tchb>: Notice that <tch> tends to follow a [short vowel](#):

<i>hatchback</i>	<u>hatch1 + back1</u>
<i>matchbook</i>	<u>match2 + book</u>
<i>matchbox</i>	<u>match2 + box1</u>
<i>pitchblende</i>	<u>pitch2 + blende</u>
<i>sketchbook</i>	<u>sketch + book</u>
<i>switchback</i>	<u>switch + back1</u>
<i>switchblade</i>	<u>switch + blade</u>
<i>switchboard</i>	<u>switch + board</u>
<i>watchband</i>	<u>watch + band1</u>

<ghtw>: Notice that <gh> and <ght> tend to follow a [long vowel](#):

<i>flightworthy</i>	<u>flight + wor1+th)2+y]1</u>
<i>lightweight</i>	<u>light2 + weigh+t)2</u>
<i>nightwear</i>	<u>night + wear1</u>
<i>rightward</i>	<u>right + ward]</u>
<i>straightway</i>	<u>straight1 + way1</u>
<i>tightwad</i>	<u>tight + wad</u>

<ndst>: Notice how that [d] tends to get lost.

<i>bandstand</i>	<u>band2 + stand</u>
<i>grandstanding</i>	<u>grand + stand+ing)1</u>
<i>grindstone</i>	<u>grind + stone</u>
<i>handstand</i>	<u>hand + stand</u>
<i>sandstone</i>	<u>sand1 + stone</u>
<i>sandstorm</i>	<u>sand1 + storm</u>
<i>soundstage</i>	<u>sound1 + stage</u>
<i>standstill</i>	<u>stand + still1</u>
<i>windstorm</i>	<u>wind1 + storm</u>

Confident, confidant. Both *confident* and *confidant* come from a Latin word that meant “to rely on.” The adjective *confident* is discussed at [-ance](#)), [-ence](#)); [-ant](#)),

-ent). The noun *confidant* is pronounced [cɔ̃nˌfɪˈdɑ̃nt], with a short <a> in <dant> where *confident* has a schwa in <dent> and with a different stress pattern. *Confidant* is often spelled *confidante* when referring to a woman or girl.

Conjunctions. In grammar there are two types of conjunctions, or joiners: coordinating and subordinating. **Coordinating conjunctions** join together two things that are being treated as equals, or coordinate – for instance, the [adjectives](#) *blue* and *white* in the phrase “the blue **and** white orchids,” or the two [nouns](#) in the phrase “dogs **and** cats,” or the two [main clauses](#) in the compound sentence “She said she’d be here **and** she usually keeps her word.” Other coordinating conjunctions are *but*, *or*, *so*, and *nor*.

Subordinating conjunctions combine two unequal clauses and introduce the subordinate clause, whether it comes before or after the main clause: “**If** it rains, we’re not going” (with a comma between the clauses) and “We’re not going **if** it rains” – usually with no comma. There are many subordinating conjunctions but common ones are *after*, *although*, *as*, *because*, *before*, *if*, *since*, *that*, *though*, *unless*, *until*, *while*. Subordinate clauses usually cannot stand free as sentences. The relation between main and [subordinate clauses](#) is much like that between free and bound [stems](#) or free and bound [bases](#).

Conscious, conscience. The [base](#) of these two words in *sci*¹, which originally meant “to cut or split” and acquired the later sense of “to separate one thing from the other” and finally in Latin came to mean “knowledge, understanding.” *Sci*¹ also occurs in the words *science*, *scientist*, *scientific*, *omniscient*, etc. The [suffix](#) in *conscious* is *-ous*), which forms [adjectives](#) that can be [converted](#) to [nouns](#). The suffix in *conscience* is *-ence*), which forms nouns but not adjectives. Paying special attention to the pronunciation of the end of these two can help. And a possible [mnemonic](#): *Conscience* has two <n>’s, just like *noun*.

Consonant letters and the sounds they spell. These are the 22 consonant letters:

 <c> <d> <f> <g> <h> <j> <k> <l> <m> <n>

<p> <q> <r> <s> <t> <u> <v> <w> <x> <y> <z>

** and [b].** The letter and its [doublet](#) <bb> regularly spell [the sound](#) [\[b\]](#), as in *bib* and *babble*, accounting for 99.9% of the spellings of [b] in CommonWords. The <bb> doublet is rarely due to [simple addition](#) (*dumbbell*, *subbranch*), sometimes due to [assimilation](#) (*abbreviate*), is more often due to [twinning](#) (*chubby*, *dubbing*, *flabby*, *jobber*, *robbery*, *rubber*, *shrubbery*, *stubby*), or to the [VCV/VCCV](#) contrast (*abbey*, *cabbage*, *hobby*, *jabber* (“talk”), *rabbit*, *ribbon*, *rubbish*) or the [VCle/VCCle](#) contrast (*bubble*, *pebble*, *rabble*). The sound [b] is also spelled with the [simplifications](#) <mb> (*bomb*, *comb*, *lamb*, etc.) and <pb> in *cupboard*. AES, pp. 328-33.

<c> and [k] and [s]. For <c>=[k] see [<k> and \[k\]](#). The letter <c> spells [\[s\]](#) only when it's immediately followed by <e>, <i>, or <y> – as in *ice, icing, icy*. In CommonWords [s] is spelled <c> about 20% of the time; <s> about 75% of the time. See also [Soft and hard <c> and <g>](#). AES, pp. 405-06.

<d> and [d]. In CommonWords the [sound \[d\]](#) is spelled <d> or its [doublet <dd>](#) about 99.5% of the time, as in *dad* and *riddle*. The <dd> doublet is due to [assimilation](#) only in *sudden*, sometimes due to [simple addition](#) (*addict, address, adduce, midday*), more often due to [twinning](#) (*bidden, daddy, goddess, muddy, reddest, riddance, sadden, wedding*), and to the [VCV/VCCV](#) contrast (*bladder, eddy, ladder, shudder, udder*) and the [VCVle/VCCle](#) contrast (*fiddle, huddle, middle, paddle, riddle, saddle*). The sound [d] is also spelled with the [simplification](#) <ld> in *could, would, should, and solder*. And the letter <d> also is used in the two [doublet equivalents](#) <dg> and <dj> to spell the sound [j], as in *bridge, edge, judge, knowledge, and adjective, adjoin, adjourn, adjust*. When we add the past suffix *-ed* to any verb that ends with a [voiced sound](#) other than [d], the <ed> spells the sound [d]: *boomed, filed, freed, starred, sighed, sinned*. AES, pp. 337-42.

<f> and [f]. In CommonWords about 86% of the time the letter <f> and its [doublet <ff>](#) spell [the sound \[f\]](#), as in *fluff*. But <f> is very rare at the end of words after a vowel: The only known cases are *if* and *of*, and in *of* <f> spells [v], the only known instance of <f> = [v]. Usually word-final [f] after a vowel is spelled <ff>: *cliff, fluff, gruff, off, scoff, sniff, staff, stuff, whiff*. The <ff> doublet is also often due to [simple addition](#) (*griefful, safflower, shellful, soffit, traffic*), more often due to [assimilation](#) (*affection, afford, differ, difficult, effect, effort, offend, offer, office, suffocate*), rarely to [twinning](#) (*iffier, iffy, reffed, reffing*), more often to the [VCV/VCCV](#) contrast (*buffalo, caffeine, coffee, daffodil, muffin, off, tiffany*) and the [VCle/VCCle](#) contrast (*ruffle, waffle*). The sound [f] is also spelled with the [simplifications](#) <ft> and <lf>, as in *often, soften* and *calf, behalf, half*. The sound [f] is spelled <gh> in *cough, enough, laugh, laughter, rough, tough*. And it is spelled <ph> and <pph> in *phone, photograph, prophet, sphere, triumph, typhoon* and *sapphire*. AES, pp. 377-84.

<g> and [g]. The letter <g> accounts for 99% of the spellings of [\[g\]](#) in CommonWords and for 67% of the spellings of [j]. See [Soft and hard <c> and <g>](#). The letter <g> regularly spells the sound [g] before the vowel letters <a, o, u> or any consonants, as in *gate, glove, got, great, gut*. Sometimes in the <gu> spelling the <u> is a silent insulator used to separate the <g> from an <e, i, y>, which would spell the sound [j] rather than [g]: *disguise, fatigue, guess, guide, guilt, guy, vague*. The <gg> [doublet](#) is due to [simple addition](#) (*doggone*, only known case), [assimilation](#) (*aggrandize, aggravation, aggression, aggrieve*), [twinning](#) (*baggy, beggar, druggist, logging, luggage, wagged*), or the [VCV/VCCV](#) contrast (*dagger, maggot, toboggan, trigger*), or the [VCle/VCCle](#) string (*goggles,*

squiggle, struggle, wiggle). The digraph <gh> spells [g] in *ghastly, ghoul, ghost, sorghum, and spaghetti*. Due to [simplification](#) the sound [g] is spelled <tg> in *mortgage* mort1+gage1 and <ckg> in *blackguard* black+guard. AES, pp. 350-55.

<h> and [h]. In CommonWords about 97% of the time, the [sound \[h\]](#) is spelled <h>, as in *hat, house, hungry*. The letter <h> also occurs in these [digraphs and trigraphs](#):

- <ah> to spell [ə] and [ä] as in *Allah, hurrah, Jehovah, messiah*
- <aoh> to spell [ō] as in *pharaoh*
- <ch> to spell [ch] as in *church* and [k] as in *school* and *stomach*;
- <sh> to spell [sh] as in *shush*;
- <th> to spell [th] as in *thin*, [tʰ] as in *then*, and [t] as in *Thomas*;
- <rh> to spell [r], as in *rhinoceros, rhubarb, rhythm*;
- <rrh> to spell [r], as in *diarrhea, hemorrhage, myrrh*;
- <wh> to spell [h], as in *who, whole, whom, whose*, or to spell [ʰw] or [w], as in *whale, while, whether*;

The letter <h> occurs as a true silent letter in *heir, honest, honor, hour* and after <x>, as in *exhaust, exhibit, exhilarate, exhort, exhume*. AES, pp. 386-90.

<j> and [j]. The letter <j> regularly spells [the sound \[j\]](#), nearly always at the head of bases, as in *joke, junior, project, rejoice*, but accounting for only 24% of the spellings of [j] in CommonWords. The sound [j] is spelled <g> before <e, i, y> – as in *cage, caging, cagy*, accounting for 67% of the spellings of [j]. See [Soft and hard <c> and <g>](#). The sound [j] is spelled with the doublet <gg> only in *exaggerate*. After short vowels it is often spelled with the [doublet equivalent](#) <dg> as in *abridgment, badge, fledgling, judgment, ridge, lodger, fudging*. It is less often spelled with the doublet equivalent <dj> as in *adjective, adjoin, adjourn, adjust*. And it is spelled with a [palatized](#) <d> usually followed by <u>, as in *fraudulent, gradual, graduate, individual, procedure, schedule*. The letter <j> spells [j] in the Norwegian adoption *fjord*. It spells [h] in the Spanish adoption *junta*, and due to [simplification](#) <ju> spells [w] in *marijuana*. AES, pp. 417-21.

<k> and [k]. [The sound \[k\]](#) has the most complicated spellings of all the consonants. The letter <k> regularly spells [k], but that is just the beginning, and all that follows is still a simplification. The complications arise because the sound [k] has five major spellings (<c>, <ch>, <k>, <q>, <qu>) and four [doublets or doublet equivalent](#) spellings (<cc>, <ck>, <cq>, <kk>). The numbers in parentheses below show the number of words in CommonWords with each spelling. The sound [k] is spelled

- <c> before <a, o, u>, as in *cat, cot, cut* (1412)
- <ch> as in *chaos, chemistry, chlorophyll, echo, schedule, school, stomach* – and *ache* (87)
- <k> before <e,i,y>, as in *shake, shaking, shaky* (309)
- <q> as in *equal, frequent, quack, quarrel, queen, request, squeak, squirrel* (91)

- <qu> as in *antique, clique, croquet, grotesque, mosque, mosquito, opaque, queue* (10)

The sound [k] is also spelled

- <cc> due to **assimilation**, as in *account, accurate, occasion, occur*, and due to **twinning** in *sicced* (31)
- <ck> in a **VCC string**, as in *back, chicken, lucky, package, tackle* (118)
- <cq> due to assimilation, as in *acquaint, acquire, acquittal* (4)
- <kk> rarely, due to twinning, as in *trekked, trekkie, yakking* (0)

Other minor spellings include <cch> in *saccharine, zucchini* (0); <kh> in *khaki* (0); <lk> in *talk, walk* (10); <sc> in *viscount* (0); <x> in *excel, excite* (13). AES, pp. 355-72.

<l> and [l]. The letter <l> regularly spells **the sound [l]**, and the sound [l] is spelled either <l> or <ll> over 99% of the time in CommonWords. The contrast between the <l> and <ll> spellings is less clear-cut than it is for most other consonants. But the <ll> **doublet** is often due to **simple addition** (*actually, soulless*), **assimilation** (*allege, alloy, collapse, collect, illogical, illusion*), **twinning** (*compelling, controller, patrolling, propellant, rebellion*), or the **VCV/VCCV** contrast (*ballad, collar, lullaby, silly, valley, yellow*). The only other spelling of [l] is the **simplification** <sl> in *aisle, isle, island*. AES, pp. 439-47.

<m> and [m]. The letter <m> regularly spells **the sound [m]**, and the sound [m] is nearly always spelled <m> or <mm>, more than 98% of the time in CommonWords. The <mm> **doublet** is always due to **simple addition** (*command, commercial, commit, communal*), **assimilation** (*immature, immediate, immortal, symmetry*), **twinning** (*dammed, dimmest, drummer, humming, slimmer*), or the **VCV/VCCV** contrast (*comma, dilemma, hammer, mummy, simmer*). There are four minor spellings of [m], all **simplifications** and usually at the end of words:

- <mb> as in *bomb, climb, comb, dumb, lamb, tomb, womb*;
- <lm> as in the most common pronunciation of *alms, calm, palm, psalm, qualm*;
- <mn> as in *autumn, column, condemn, damn, hymn, solemn*;
- <gm> as in *diaphragm, paradigm, phlegm, syntagm*. AES, pp. 423-29.

<n> and [n]. The letter <n> regularly spells **the sound [n]**, and about 99% of the time the sound [n] is spelled either <n> or <nn>. As usual the <nn> **doublet** is always due to **simple addition** (*innate, innocent, innuendo, leanness, thinness*), **assimilation** (*announce, connect, connotation*), **twinning** (*beginning, funny, inner, thinnest*), or the **VCV/VCCV** contrast (*cannibal, channel, minnow, penny, tennis, tunnel*). In four **simplifications** the sound [n] is also spelled

- <kn> as in *knead, knee, knew, knife, knight, knot, knuckle*;

- <gn> as in *gnarl, gnash, gnat, gnaw, gnome*;
- <pn> as in *pneumatic, pneumonia, pneumococcus*;
- <mn> as in *mnemonic*. AES, pp. 429-35.

<p> and [p]. The letter <p> and its **doublet** <pp> regularly spell **the sound [p]**, more than 99% of time in CommonWords – <p> at any position in a word, <pp> never at the beginning or end. The <pp> doublet is rarely due to **simple addition** (one pronunciation of *lamppost, stepparent*), often due to **assimilation** (*appeal, approach, approve, oppress, supply, support, suppose*), more often due to **twinning** (*clipping, happy, slipper, upper, zipper*), the **VCV/VCCV** contrast (*copper, hippopotamus, kipper, pepper, poppy*) and the **VCle/VCCle** contrast (*apple, cripple, grapple, ripple, supple, topple*). AES, pp. 335-37.

<q> and [k]. See **<k> and [k]**.

<r> and [r]. The letter <r> and its **doublet** <rr> regularly spell **the sound [r]**, and account for more than 98% of the spellings of [r] in CommonWords. But the consonant sounds [l] and [r] are classified as liquids, and with both liquids the **VCV/VCCV** distinction is less useful than with other consonants – consider, for instance, the effect of [r] on a preceding vowel, as in *fate* or *fame* or *faze* vs. *fare*. However, <r> spells [r] in any position in the word: *acre, cheer, circle, direction, miracle, orange, player, rabbit, ruin, theory*. The doublet <rr> sometimes spells [r] at the end of words: *bizarre, burr, err*. Often the <rr> is due to **twinning**: *deterrent, furry, occurred, recurrent, starry, stirring, warrior*. Fairly often it is due to **assimilation**: *arrive, correct, corrupt, irradiate, irresponsible, irrigate, surrogate* or to **simple addition**: *earring, interrogate, interrupt, surreal, surrender, surround*. The <rr> also can occur in a VCC string, though it can be hard to identify a short vowel at the head of it: *current, horrible, marry, merry, worry, sorry, squirrel, stirrup, warrior*. Three minor spellings of [r] are the **simplification** <wr> (*wrap, wreck, wrench, wrinkle, write, wry*), and the digraph and trigraph **<rh> and <rrh>** (*rheostat, rhinoceros, rhubarb, rhythm; diarrhea, hemorrhage, myrrh*). In *corps* [kôr] we apparently must say that [r] is spelled <rps> via simplification. AES, pp. 447-55.

<s> and [s]. In CommonWords 83% of time **[s]** is spelled <s> or <ss>, as in *sassy* and *sissy*. The letter <s> spells [s] anywhere in a word: *solid, dense, radius*. The **doublet** <ss> is rarely due to **twinning** (*busses, gassed, plusses, yesses, sissy*), sometimes due to **simple addition** (*dissatisfied, dissect, dissipated, misspeak*), often due to **assimilation** (*assault, assembly, assets, assignment, assimilation, assist, assorted*), sometimes due to the **VCCV/VCV** contrast (*blossom, casserole, opossum pessimism, vessel*), and rarely due to the **VCCle/VCle** contrast (*hassle, tussle*).

However, things get much more complicated: First, the sound [s] is often spelled <c> before <e, i, y>: *lace, lacing, lacy*. See **Soft and hard <c> and <g>**.

A second complication is that very often the letter <s> spells **the sound [z]**,

more often than does the letter <z> (*capitalism, dogs, has, observe, visit, dismal*), while <ss> also sometimes spells [z], as in (*dessert, dissolve, possessive, scissors*).

A third complication is that <s> appears in several **simplifications** that spell [s]: <ps> (*psychic, psychology*), <sc> (*scene, scientist*), <st> (*listen, whistle*), <sth> (*isthmus*), <sw> (*sword*).

And finally <s> appears in spellings of sounds other than [s]: <tsch> = [ch] in *putsch*, <sl> = [l1] in *aisle, isle, island*, and four spellings of [sh]: <s> in *dimension, insurance, sugar, surely*; <sc> in *conscience, conscious, crescendo, fascism*; <sh> in *short, bishop, blush*; <ss> in *issue, mission, passion, session, tissue*.

In a word-final base that would otherwise end with a single <s>, if there is a consonant or vowel digraph preceding the <s>, a silent final <e> is added as an **insulator** to keep the word from looking like a plural: *browse, curse, dense, else, hearse, lapse, goose, moose, please, sparse* – and by extension *clause, house, noise*, etc. AES, pp. 394-405, 407-12, 422.

<t> and [t]. About 97% of time in CommonWords **the sound [t]** is spelled <t> or <tt>. The letter <t> spells [t] at the beginning, middle, or end of a word: *testament, thermostat, treatment*. The **doublet** <tt> is often due to **twinning** (*admittance, flattest, knitting, rebuttal, rotten, shutter*), to **simple addition** in some pronunciations (*cattail, outtake, rattrap*), to **assimilation** (*attack, attend, attention, attire, attribute*), to the **VCC/VCV** contrast (*attic, butter, cotton, glitter, jetty, lettuce, motto, utter*), or to the **VCCle/VCle** contrast (*battle, bottle, brittle, cattle, kettle, scuttle, shuttle, throttle*). But after this ruly start there are several unruly spellings of [t] – usually quite rare, sometimes **simplifications** involving the letter <t>, sometimes **Latinizations**:

- <ed> or <d> = [t] in the past tense of verbs that end with one of the **voiceless** sounds [ch, f, k, p, s, sh] (*perched, miffed, hooked, stopped, kissed, fished*) – depending on whether we treat the <e> as silent, making <d>=[t] (25 instances in CommonWords)
- <ght> = [t] (*bought, caught, eight, freight, height, sight, weight*) (76)
- <bt>=[t] in some Latinizations (*doubt, debt, subtle*) (7)
- <pt>=[t] (*pterodactyl, ptomaine, receipt*) (1)
- <th>=[t] (*Thomas, thyme*) and one pronunciation of *posthumous* (2)
- <tw> = [t] in *two* (1)
- <cht> = [t] in *yacht* (1)
- <ct> = [t] in the Latinization *indict* (1)
- <dt> = [t] in the Dutch *veldt* (0)

In one pronunciation of *eighth* [äthh] there is apparently an “invisible [t],” the reverse of a silent letter. AES, pp. 342-49.

<u> and [w]. The letter <u> usually spells vowel sounds, but it sometimes spells **the consonant sound [w]**, and whether it spells [w] or not, it is a consonant

whenever it follows <q>. See [<k> and \[k\]](#). The letter <u> sometimes spells [w] after <g>: *anguish, extinguish, iguana, jaguar, language, linguist, penguin*. It rarely spells [w] after <s>: *assuage, persuade, suave, suede, suite*. It spells [w] after <j> only in *marijuana* and after <p> only in *pueblo*. In words like *use, utility* and *uniform* <u> spells the complex [yū] sound, which some linguists treat as a consonant-vowel sequence. *AES*, pp. 457.

<v> and [v]. Although it took centuries for <u>, <f>, and <v> to sort themselves out in our alphabet, things are quite simple now for the letter <v>: It and its very rare [doublet](#) <vv> regularly spell [\[v\]](#), as in *verve* and *revved*. The <v> spelling can occur anywhere in a word although at the end of words [v] is usually covered by the [insulator](#) <e>: *advise, alive, shove, silver, valve, verdict, wolves*. The <vv> doublet is very rare and restricted to new and rather peripheral words: *chivvy* (“vex, harass”), *flivver, divvy*, (probably formed from *divide*), *navvy* (“laborer,” formed from *navigator*), *revving, savvy, skivvies* (“underwear”). The two minor spellings of [v] are <lv>, as in *calve, halve, salve*, and <f>, only in *of*. *AES*, pp. 373-77.

<w> and [w]. The letter <w> regularly spells [the consonant sound \[w\]](#), as in *award, sweet, swift, swoop, waitress, wisdom, wonder, wooden*. A second common spelling of [w] is <wh> in such words as *awhile, overwhelm, whale, wheel, when, where, whisper, white, why*. Most words with <wh> were spelled <hw> in [Old English](#) and pronounced [hw]. The [Norman scribes](#) inverted the spelling, bringing it into line with other [consonant digraphs](#) ending in <h>: <ch, gh, sh, th>. Today the pronunciation of <wh> varies from [w] through [ʰw] to [hw]. The sound [w] has an unusual spelling in *one, once* – where apparently we have to say either that [wʊ] is spelled <o> or we have an “invisible” [w]. The letter <w> appears as a vowel letter in the digraphs <aw, ew, ow>: *maw, mew, mow*. See [<u> and \[w\]](#). *AES*, pp. 456-59.

<x> and its sounds. At the beginning of words <x> usually spells [the sound \[z\]](#): *xenon, xenophobia, xylophone, xerox*. But in words where the <x> is treated as an initial, it spells [ɛks] – as in *x-ray* and the verb *x*, as in *x’d out, x’ing out*. Often, and especially in final position, <x> spells the voiceless [ks]: *climax, dexterity, exclaim, express, external, fox, index, next, paradox, textile, wax*. In the middle of words it spells [ks]’s voiced counterpart [gz] when it precedes a stressed [vowel](#): *exam, exasperate, executive, exempt, exhaust, exhibit, exist, exuberant*. In English the [doublet](#) <xx> does not occur, probably because most of the time it is a one-letter sound cluster, [ks] or [gz]. See *AES*, pp. 352, 371.

<y> and [y]. The letter <y> usually spells vowel sounds. But at the beginning of elements and syllables it regularly spells [the consonant sound \[y\]](#): *beyond, farmyard, yacht, yawn, yellow, yesterday, youth, yule*. In one pronunciation of *llano* “grassy plain” [y] is spelled <ll>. *AES*, pp. 459-60.

<z> and [z]. In spelling [the sound \[z\]](#) <s> is actually more common than <z> (nearly 8:1), and the <s>, <z>, <ss>, and <zz> spellings of [z] can be a bit of a tangle. The sound [z] is spelled in the following ways:

- <z> at the beginning, middle or end of words: *breeze, citizen, frenzy, ooze, quiz, sneeze, topaz, zebra, zigzag, zinc, zone, zoo* (83 instances in CommonWords)
- <zz> due to [twinning](#): *quizzed, whizzing, fezzes*
- <zz> in [VCC](#) strings: *blizzard, buzz, buzzard, dizzy, fizz, fuzz, gizzard, jazz*;
- <zz> in [VCCle](#) strings: *drizzle, embezzle, puzzle, sizzle* (all 3 <zz> spellings total only 7 instances in CommonWords)
- <s> in the middle or at the end of words when it is preceded or followed by a [voiced sound](#): *closet, cosmic, dogs, has, lunches, observe, pose, was, wisdom* – and words with the suffix *-ism*) (*capitalism, socialism, etc.*) and when the suffixes *-es*¹ and *-es*² are pronounced [ɪz] when added to 3rd person present [verbs](#) and [nouns](#) that end with [s, z, sh, ch] (621 instances in CommonWords)
- <ss> via simple addition: *dessert, dissolve, possess*;
- <ss> in a [VCC](#) string in *scissors*. (both <ss>'s add up to only 6)

The sound [z] has these minor spellings: <x> in initial position (*xenon, xylophone*); in the three variants <cz> in *czar*, <ts> in *tsar*, and <tz> in *tzar*; and <sth> in *asthma*.

Silent final <e> is sometimes used to [insulate](#) otherwise final <s> and <z>, especially after consonants or vowel digraphs: *fez, quiz, topaz* but *bronze, gauze, squeeze, wheeze*; and *as, lens* but *applause, disease, noise*. See AES, pp. 391-97.

Consonant sounds. English consonant sounds are usually categorized by place and manner of articulation, as in the chart below. Columns indicate places of articulation in the mouth; rows indicate manner of articulation. In the chart below, in cases where a single set of square brackets contains two sounds, the first of the two is voiced, the second unvoiced, or voiceless. See [Voiced vs. voiceless \(unvoiced\) sounds](#):

	Front			Mid	Back		
	Bilabial	Labio-dental	Inter-dental	Alveolar	Palatal	Velar	Glottal
Stops and affricates	[b, p] <i>bob, pop</i>			[d, t] <i>dad, tat</i>	[j, ch] <i>judge, church</i>	[g, k] <i>gig, kick</i>	
Fricatives		[v, f] <i>vie, fie</i>	[θ, ð] <i>then, thin</i>	[z, s] <i>zip, sip</i>	[ʒ, ʃ] <i>azure, ashes</i>		[h] <i>hag</i>
Nasals	[m] <i>mom</i>			[n] <i>nun</i>		[ŋ] <i>rang</i>	

	Front		Mid	Back	
Liquids			[l], [r] <i>lull, roar</i>		
Semivowels				[y] <i>you</i>	[w] <i>woo</i>

Bilabials are articulated at the two lips; labiodentals at the lower lip and upper teeth; interdental with the tip of the tongue between the upper and lower teeth. Alveolars are articulated with the front of the tongue near or touching the alveolar ridge behind the upper teeth. Palatals are articulated with the tongue against the palate, or roof of the mouth; velars are articulated with the back of the tongue at or near the soft palate at the rear of the mouth; glottals are articulated at the glottis further back and above the vocal cords.

Stops are articulated by stopping the flow of air and releasing it suddenly. Some linguists call them plosives. Fricatives are articulated with enough closure to produce friction. Affricates begin with a stop and end with a fricative: [j] = [dzh], [ch] = [tsh]. Nasals are articulated through the nose. Nasals, liquids, and semivowels are articulated smoothly, with no friction. (EDLL, OCEL, AES, pp. 201-06, 209-12)

Consonant and vowel letters. In general we treat a letter as a consonant letter when it spells a [consonant sound](#) and as a vowel letter when it spells a [vowel sound](#). The three letters <y, u, w> sometimes spell consonant sounds, sometimes vowel sounds, so they can be either consonant or vowel letters:

The letter <y> is a consonant only at the beginning of syllables when it spells [the consonant \[y\] sound](#) that it spells in *yell*; everywhere else it is a vowel.

The letter <u> is a vowel when it spells [vowel sounds](#) such as [ũ] in *buck*, [ü] in *bull*, [ū] in *include*, [yū] in *butte*, and in the [vowel digraphs](#) <au> as in *author*, <eu> as in *neutron*, <ui> as in *build*, <ou> as in *out*. It is a consonant in only two situations: (i) when it spells [the consonant sound \[w\]](#), as in *language* and *pueblo*; and (ii) when it follows the letter <q>, whether it spells [w], as in *quit*, or does not, as in *mosquito* and *plaque*.

The letter <w> is usually a consonant, including in the consonant [digraphs](#) <wh> and <wr>. It is a vowel only in the vowel digraphs <aw>, <ew>, and <ow>, as in *craw*, *crew*, and *crow*. (In some mercifully rare Welsh [adoptions](#) it spells long <u>, as in *cwm* [kūm] “a mountain hollow.”)

The following four are always vowel letters: <a, e, i, o>. And the following nineteen are always consonant letters: <b, c, d, f, g, h, j, k, l, m, n, p, q, r, s, t, v, x, z>. AES, pp. 207-12. For more on consonant and vowel letters see [Sometimes a Vowel Is Not a Vowel, and Sometimes a Consonant Is](#) and [On](#)

[Vowels and Consonants – All You Ever Wanted to Know, But . . .](#) in the Short Articles branch of this website.

Content and meaning. Content is what words have; meaning is what people make of that content. In spite of the way we commonly use the words *mean* and *meaning* (including in this compendium), words don't actually mean; people do. Words and elements have at least two kinds of content: (i) **Semiotic content**, an agreed-upon range of senses that people can draw from to formulate and communicate their own meanings. And (ii) **morphological** or **syntactic content**, information about the function of the word in sentences. For instance, the suffix -s)₂ indicates that the word is a 3rd person singular verb – as in *she sings* sing₁+s)₂, and -s)₃ indicates that the word *fits* is a plural noun – as in *the fits* fit₄+s)₃.

The study of content is **semiotics**; the study of meaning is **semantics**. Although the distinction between content and meaning is very important, it is usually ignored, and *meaning* is often used when what is actually being referred to is content. AES, p. 35. For more on this distinction see “Content and Meaning” in [Orthography as an Evolving Complex System](#) in the Short Articles branch of this website.

Contraction. The most easily recognized contractions are those that contain apostrophes – like *doesn't* and *o'clock*, which contract – or abbreviate – *does not* and *of the clock*. In earlier English there was a construction known as the *his*-possessive – as in Shakespeare's “And art thou not Poines, his brother?” – meaning “the brother of Poines.” Though the issue is not completely clear, it seems likely that our **possessive** -'s)₁ suffix contracts that earlier use of *his*. Or it may simply contract the Middle English possessive suffix -es).

But not all contractions in English spelling are marked with apostrophes: CommonWords lists 60 bases, 28 prefixes, and 13 suffixes as instances of contraction: Among bases *wel* as in *welcome* is a contraction of the free base *well* “good”; *yup* as in *yuppie* contracts *young urban professional*; and *syn* as in *synfuels* contracts *synthetic*, a kind of contraction particularly common in the scientific and technical **registers** – for instance, *ket1* as in *phenylketonuria* contracts *ketone* “a chemical compound.”

Conversions. Conversion is the process by which a word of one part of speech is converted to use as a different part of speech. Since English does not use many inflections to indicate parts of speech, conversion is very easy, productive – and ancient – in English. The conversion of nouns to verbs, and vice versa, is probably the most common: CommonWords lists 2,523 words tagged as both regular noun and regular verb: *age*, *jump*, *kiss*, *lodge*, *milk*, *neglect*, *outrage*, etc. Even more creative conversions are possible – for instance, the conjunction-to-verb-and-noun **nonce** conversion in “But me no buts.” Odd but understandable. Conversion is one of the things that can make studying parts of speech difficult for students.

Also, CommonWords lists 57 cases where affixes are converted for use as bases.

For instance, in the informal *ref*, which contracts *referee* <re1+fer+ee>1, the prefix <re1- is converted to part of the new base *ref*.

Council, counsel, consul, consult. These four words have a lot in common: They all contain a **prefix** meaning “with, together”; (*coun-* is just a variant of (*con-*, which is an **assimilated** form of (*com-*. The **base** *cil1* in *council* and the base *sel1* in *counsel* both descend from a root that originally meant “to shout.” Both *council* and *counsel* came by way of the Latin word *consilium*, which meant among other things “a deliberative or advisory body” and “advice.” So neither **etymology** nor word structure are much help in trying to sort out these two. About all we can say is that usually *council* is a **noun**, referring to an advisory group and its advice, while *counsel* can be a **verb** meaning to offer advice or a noun referring to the person offering it.

Consul and *consult* are also tightly bound together: Both contain the assimilated prefix (*con-* “with, together.” The bases *sul* and *sult2* both came from a root that meant “to take, grasp, gather.” Both words came by way of Latin words that related to the idea of taking council. *Consul* is a noun referring to the official representative of a nation; *consult* is almost always a verb “to seek or give advice,” and when it is a noun, it usually involves doctors and medicine.

Decent, descent, dissent. The **adjective** *decent* explicates to <dec2+ent>, the **noun** *descent* to <de+scent2>, and the **noun** and **verb** *dissent* explicates to <dis+sent2>. The earliest meaning of *dec2* was “take, accept,” which in time became “to be fitting, acceptable.” The **base** *scent2* means “leap, climb,” the **prefix** (*de-* means “down, lower.” *Descent*, a noun, refers to the result of the verb *descend*. With different prefixes, *ascent* and *ascend* and *extent*, *extend* have that same noun/verb relationship.

In *dissent* the base *sent2* means “head for, go” which is negated by the prefix (*dis-*. Notice that unlike *decent*, both *descent* and *dissent* have **stress** on the second **syllable**.

Dental sounds. Dentals are **consonant sounds** pronounced with the tongue against the upper dental ridge. Also called **alveolar** sounds.

Derivation, derived forms. Derivation is the process by which words are derived, or formed, by adding suffixes (and less often prefixes) to stems. See **Derivational Suffixes**.

Desert, dessert, deserts. These three can be quite a tangle. *Desert* can be either a **noun** “a barren place” with **stress** on the first vowel, or a **verb** “to abandon, strand” with stress on the second vowel. As a verb it is a **homophone** of *dessert* “the final course of a meal,” though in meaning and history they are not at all related. The nouns *desserts* and *deserts* – as in *He got his just deserts* – are also homophones unrelated in meaning and history.

Desert explicates to (*de-* “off, away” plus the base *sert1* “line up, attach” – and thus the sense “unattached, abandoned.”

Dessert explicates to (des2+sert2). The prefix (*des2-* is a French form of (*de-*. The base *sert2* originally meant “slave” but came to mean “serve” – so *dessert* originally meant “the removal of that that was served.”

Deserts explicates to (de+sert2+s)3 and is related to the word *deserve*.

The major spelling problem is remembering that <ss> in *dessert*. A [mnemonic](#) can help: *Dessert tonight is strawberry shortcake*.

Dictionaries. I have not had enough experience with elementary and secondary school dictionaries to offer much solid advice. My one general suggestion would be to choose dictionaries that have clear and systematic treatments of [etymology](#). The *American Heritage Student Dictionary* meets that criterion. And of course so does the college *American Heritage Dictionary*, the one abridged dictionary I have used the most and rate the highest. See also the [Oxford English Dictionary](#) and [On Dictionaries and Other Helps for Teaching Vocabulary and Spelling](#).

Digraphs and trigraphs. Digraphs and trigraphs are strings of two or three letters that spell a single vowel or consonant sound. Some are very rare; several are [doublets](#), [doublet equivalents](#), or [simplifications](#) of earlier spellings. Some spell many different sounds; many deal with various pronunciations of [r]:

Vowel Digraphs:

<ae> *larvae, anaerobic*

<ah> *hurrah, messiah*

<ai> *sail, said, bargain, aisle, villain*

<au> *taught, laugh, gauge, chauvinism, glaucoma, authority*

<aw> *saw*

<ay> *pay, says, aye*

<ea> *bread, bead, break*

<ee> *see, been, Beethoven*

<ei> *height, veil, neither, foreign, foreigner*

<eo> *leopard, people, yeoman, pigeon*

<eu> *eureka, neutral, neurosis, pasteurized*

<ew> *new, sew, few*

<ey> *key, prey, geyser*

<ia> *carriage, parliament, pneumonia*

<ie> *achieve, die, friend, patience*

<io> *fraction, ratio*

<iu> *Belgium*

<oa> *foam, broad*

<oe> *toe, amoeba, does*

<oh> *John, ohm*

<oo> *school, Roosevelt, flood, wood*

<ou> *out, poultry, thought, rough, routine, could, courteous*

<ow> *cow, knowledge, rainbow*

<oy> *toy*

<ue> *blue*
<ui> *build, suit*
<uu> *vacuum*
<uy> *buy*

Vowel Trigraphs:

<aoh> *pharaoh*
<eau> *bureaucracy, bureau, bureaucrat*
<eou> *gorgeous*
<ieu> *lieutenant, adieu*
<iew> *view*
<iou> *religious*
<uoy> *buoyancy*

Consonant Digraphs:

<ar> *tariff, rare, dictionary, hard, reward, coward*
<bb> *cabbage*
<bp> *subpoena*
<bt> *doubt*
<cc> *accuse*
<ch> *church, school, chutzpah*
<ck> *attack*
<cq> *acquaint*
<cz> *czar*
<dd> *ladder*
<dg> *grudge*
<dj> *adjective*
<er> *wherever, sheriff, era, sergeant, term, customer*
<ff> *offense*
<ft> *soften*
<gg> *struggle, exaggerate*
<gh> *laugh, ghost, neighbor*
<gm> *paradigm*
<gn> *sign*
<ir> *desirable, circle, admiral*
<kn> *know*
<ld> *should*
<lf> *calf*
<lk> *chalk*
<ll> *yellow*
<lm> *calm*
<ln> *Lincoln*
<mb> *bomb*
<mm> *comma*
<mn> *column*

<ng> *sing*
<nn> *connect*
 colonel
<or> *scorn, word, creditor*
<pb> *cupboard*
<ph> *phone, shepherd*
<pp> *happy*
<ps> *psychology*
<pt> *receipt*
<qu> *conquer*
<rh> *rhythm*
<ro> *iron*
<rr> *sorry*
<sc> *scene, conscious*
<sh> *shoe*
<sl> *island*
<ss> *miss, issue, possess*
<st> *fasten*
<sw> *sword*
<tg> *mortgage*
<th> *thin, this, Thomas*
<ts> *tsar*
<tt> *kitten*
<tw> *two*
<ur> *bury, fur, during, injury, curiosity*
<wh> *who, why*
<wr> *write*
<yr> *martyr*
<zz> *buzz*

Consonant Trigraphs:

<ahr> *Fahrenheit*
<air> *pair*
<arr> *carriage, starred, warrant*
<aur> *dinosaur*
<cht> *yacht*
<ear> *wear, dear, heart, earl*
<eer> *deer*
<eir> *heir, weird*
<eor> *George*
<err> *strawberry, err*
<eur> *entrepreneur, amateur, pasteurization*
<ght> *flight*
<ier> *pier, fiery, soldier*
<irr> *irritate, squirrel*

<oar>	<i>roar, cupboard</i>
<oor>	<i>floor, poor</i>
<orr>	<i>worry</i>
<our>	<i>source, courage, tour</i>
<rrh>	<i>cirrhosis</i>
<sth>	<i>isthmus</i>
<tch>	<i>hatch</i>
<uar>	<i>guarantee</i>
<uor>	<i>fluorocarbon</i>
<urr>	<i>burrow</i>

For more on vowel and consonant di- and trigraphs, see the [Spellings to Sounds](#) data table in the CommonWords database.

Digraphs <ch, gh, ph, rh, sh, th, wh>. The digraph <ch> was used by the Romans to transliterate the Greek chi, <χ>, spelling the sound [k], which it still does in some words like *scholar* and *Christmas*. The <ch> was seldom used in [Old English](#) to spell [ch], which was usually spelled <ce>. The use of <ch> to spell [ch] was introduced by the [Norman scribes](#). See [Palatal sounds and their spellings](#). *AES*, pp. 356-58, 412-15.

<gh>. The digraph <gh> has a complicated history. The Norman scribes introduced it to spell the [velar and palatal fricatives](#) – that is, fricative sounds pronounced far back in the mouth, much like the sounds in the Scottish pronunciation of *loch* and the German pronunciation of *Bach*. In Old English these sounds were spelled with the [rune yogh](#), <ȝ>, or with <g> or <h>. In time these fricative sounds fell out of spoken English, but their spellings remained.

Then the complications begin: Over time these fricatives either changed to other sounds or fell silent. As they did so, the vowels preceding them tended to [lengthen](#) or become [diphthongs](#). As a result today the <gh>'s that descend from Old English usually follow a long <i> or another long vowel or diphthong spelled <ai> or <ei>, or <ou>:

- *flight, high, knight, light, night, right, sigh, sight, thigh;*
- *straight; eight, freight, neighbor, sleigh, weigh, height;*
- *dough, though, thorough; through; bough, plough.*

In a few cases the <gh> follows [the low back vowel](#) [ɔ] spelled <au> or <ou>:

- *caught, daughter, haughty, naughty, slaughter, taught;*
- *bought, brought, fought, ought, sought, thought.*

And in a few cases <gh> spells [f] after <au> spelling [ǣ] or <ou> spelling [ū]: *draught, laugh, laughter; enough, rough, slough "discard", tough.*

Other than the native *burgh*, none of the <gh> spellings of [g] descend from the Old English fricatives. *Ghost* is probably a Flemish-influenced respelling of earlier *gost* by the first English printer [William Caxton](#), and *aghast* and *ghastly* are probably respellings via analogy with *ghost*. The remainder are foreign adoptions —

afghan, dinghy, ghetto, ghoul, sorghum, spaghetti, yoghurt, etc. (AES, pp. 209-10, 237-38, 379-80, and *passim*).

<ph>. The Romans used <ph> to transliterate the Greek phi, <φ>, which spelled a sound close to the Roman [f]. In time the two sounds became confused. There are a few reminders of that earlier confusion in variants like *sulfur, sulphur* and in historically related groups of words like *fantastic, fantasy; phantasm, phantom*. Most English words with <ph> are from Greek: *alphabet, apostrophe, atmosphere, biography, chlorophyll, elephant, emphasize, geography, hyphen, metaphor, orphan, paragraph, philosophy, phone, physical, prophet, sphere, triumph*. AES, pp. 378-79.

<rh>. The Romans used <rh> to transliterate the Greek rho, <ρ>, which spelled a sound close to the Latin [r]. In time the Greek and Latin sounds converged to [r]. The digraph <rh> is fairly common in the scientific-technical register: *rhapsody, rheostat, rhetoric, rheumatic, rhinoceros, rhomboid, rhododendron, rhubarb, rhythm*. Double rho was transliterated as <rrh>, as in *arrhythmia, catarrh, diarrhea, gonorrhea, hemorrhage, myrrh*. AES, pp. 448-49.

<sh>. The Norman scribes introduced the <sh> spelling of [sh] to replace the Old English <sc>. Since they were not familiar with the [sh] sound, they tried several ways of spelling it, and <sh> was finally settled upon in the 15th century. See [Palatal sounds and their spellings](#). AES, pp. 409-09.

<th>. In Old English the [runes](#) *edh*, <ð>, and *thorn*, <þ>, spelled both [voiceless](#) [tʰ] as in *thin* and [voiced](#) [tʰ] as in *then*. In late Old English or early Middle English *edh* dropped out, and *thorn* was used to spell both [tʰ] and [tʰ]. Then in the late 14th and early 15th centuries the Norman scribes gradually replaced *thorn* with <th>, again to spell both sounds. AES, pp. 384-86.

<wh>. In Old English <hw>, spelling [hw], appeared in several words: *hwæl* “whale,” *hwæt* “what,” *hwēol* “wheel” – and about 200 others with initial <hw> in J. Hall’s *A Concise Anglo-Saxon Dictionary* (Cambridge: 1975). The Norman scribes inverted the spelling, perhaps via analogy with <ch>, <sh>, <th>. Today we have modern words with <wh> with their earlier pronunciations with [hw], sometimes reduced to [ʰw], and often reduced further to [w]. In a few words <wh> has come to spell [h]: *who, whole, wholly, whom, whose*, for instance. AES, pp. 387-89, 458-59.

Diphthongs. The word *diphthong* combines two Greek elements: *di-* “two” and *phthong* “sound.” A diphthong runs together two vowel sounds. Our analysis recognizes only two modern English diphthongs: [oi] spelled <oy> and <oi> as in *coy* and *coil*, and [ou] spelled <ow> and <ou> as in *how* and *house*. The [oi] diphthong is spelled <oi> about 2:1 over <oy>, which normally occurs at the end of words. The diphthong [ou] is spelled <ou> about 70% of the time, <ow> about

30%. It is rarely spelled <au>, as in *glaucoma* and one pronunciation of *trauma*.

Although our analysis recognizes only two diphthongs, different speakers – especially those for whom English is a second language – often diphthongize our [ɪ] and to a lesser extent our [ā] and [ō].

Doublets and doublet equivalents are [consonant digraphs](#) (and the trigraph <tch>) that spell a single consonant sound, usually after a short vowel, and usually in word-medial position due to the [twinning](#) of a final consonant when adding a suffix as in *twinning* (twi+n+ing)¹ or the [assimilation](#) of final consonants in prefixes as in *announce* (ad+n+nounce) and *acquire* (ad+c+quire):

<bb> = [b] as in *robber*

<cc> = [k] as in *accurate*

<ck> = [k] as in *rock*

<cq> = [k] as in *acquire*

<dd> = [d] as in *reddest* or *odd*

<dg> = [j] as in *bridge*

<dj> = [j] as in *adjourn*

<ff> = [f] as in *offer* or *off*

<gg> = [g] as in *bigger* or *egg*

<ll> = [l] as in *allow* and *tell*

<mm> = [m] as in *hammer*

<nn> = [n] as in *dinner* or *inn*

<pp> = [p] as in *happy*

<rr> = [r] as in *carry*

<ss> = [s] as in *missing* or *kiss*

<tch> = [ch] as in *catch*

<tt> = [t] as in *cotton*

<zz> = [z] as in *dizzy* or *fuzz*

Doublets Misspelled. That old standby *Mississippi* has three doublets, which is pretty unusual. But several words contain two doublets, and it can be hard to remember them both. [Explication](#) can usually show where those doublets come from and why they're there – which is nearly always due to either [assimilation](#), [twinning](#), [simple addition](#), or the [VCC](#) pattern:

• *accommodate* (ad+c1+(com+mod4+ate))¹

• *aggression* (ad+g1+gress+ion)¹

• *embarrass* (em1+m2+barr3+ass) The suffix -ass) marks French verbs.

• *goddess* (god1+d2+ess)¹

• *Halloween* (hall2+ow)+een The base *een* [contracts](#) *evening*.

• *misspell* (mis+spell)¹

• *occurred* (ob+c1+cur1+r2+ed)¹

• *possession* (pos1+sess+ion)¹

• *successful* (sub+c1+cess1+ful)

Some words contain a doublet and a singleton, and it can be hard to remember which is which:

• *Caribbean* (Carib+b+ean)

• *disappear* (dis+(ad+p1+pear)²

• *disappoint* (dis+(ad+p1+point)

• *harass* (har1+ass)

• *necessary* (ne+cess1+ary)¹

• *occasion* (ob+c1+cas3+ion)¹

• *staccato* (stacc+ato) “Detached, separate.”

- *tobacco* tobacc+o)2
- *Tyrannosaurus* tyranno+saur1+us)1 “Tyrant lizard”
- *tomorrow* to1+morr1+ow)

Sometimes it can be hard to remember that you need a doublet:

- *finally* fin4+al)1+ly)1
- *interrupt* (inter+rapt
- *preferred* (pre+fer1+r2+ed)1
- *really* re1+al)1+ly)1
- *referred* (re+fer1+r2+ed)1

Nearly all instances of the doublet <ss> occur in just four bound bases – *gress* (in 98 words in Lexis), *miss*³ (128 words), *sess* (76), and *cess*¹ (165) and in common free bases like *class*¹ (83), *cross* (93), *pass*¹ (95), *press* (240).

Early Modern English. Early Modern English is English as it was spoken and written from roughly 1450 to 1700. It is the English of [Caxton](#), [Shakespeare](#), [Mulcaster](#), Jonson, Marlowe, Spenser, Donne, Milton, and Dryden. It was the period during which English spelling became increasingly standardized as part of a [Standard Written English](#).

Elements. Elements are the written counterpart of the [morphemes](#) of the spoken language. They are the smallest parts of written words that have the following two features:

(i) In words in which they occur, they contribute the same or closely related [content](#).

(ii) They are spelled consistently from word to word – that is, spelled either the same or with variants that can be rationalized, as with the <aesth> and <esth> variant spellings in *aesthetics* and *esthetics*.

There are four kinds of elements: free [bases](#) like *plant* and *car*; bound bases like *fect* and *fer* as in *perfect* (per1+fect and *defer* (de+fer1); and [prefixes](#) and [suffixes](#), like (*re-* and *-ed*)¹ in *replanted* (re+plant+ed)¹.

Elements often come in sets of two or more variants – for instance, *+arter*, *+arteri*, *+arterio* “windpipe, artery”, as in *artery*, *arterial*, *arteriosclerosis*. They also occur in what I call **co-sets**: pairs, or rarely triplets, of elements that are related, but not necessarily equivalent, semiotically and that operate as a team – for instance, the co-set {*+ceed*, *+cess*} as in the [verb](#) *succeed* and its [noun](#) of result *success*. AES, pp. 32-47

Eminent, imminent. Both of these words contain the [base](#) *min*² “to project, jut, threaten.” The differences are in the [prefixes](#): (ex+min2+ent) and (in+m+min2+ent). The (*ex-* is an [assimilated](#) form of (*ex-* “out, outside”: Something that is *eminent* juts out or shows – above others. The prefix (*in*²- means “in, within”: Something that is *imminent* is hidden but can soon project itself or jut out.

The different treatment of (*ex-* and (*in-* occurs in several pairs of words starting and <imm>: *emigrate, immigrate; emigrant, immigrant; emerge, immerge; emersion, immersion.*

Envelope, envelop. *Envelope* is the common **noun** referring to the paper cover you put mail into; *envelop* is the less common **verb** meaning “to wrap or enclose.” They are the same word with slightly different spellings and pronunciations to mark the difference in part of speech. Notice that the spelling of the final syllable of *envelope* is an example of the **VCV** pattern with the **long <o>**.

-er)01, -or)2. These two agent suffixes form nouns that refer to persons or things that perform actions: A teacher teaches and a director directs. There is no reliable way to tell when to choose one and when the other. One hint is that **-er)01** is five times more common in Lexis than is **-or)2**. In *CommonWords* it is only about twice as common. When in doubt, a good dictionary is your best bet.

Essay, assay. *Essay* **explicitates** to (ex+s1+say2), and *assay* explicitates to (as2+say2). Historically they are the same word, whose spellings and pronunciations have shifted back and forth over the centuries, and have settled down so that *essay* as both noun and verb has the sense of a try or trial, including that try that leads to piece of short expository prose. *Assay* is pretty much restricted to the evaluation of metals. The **prefix** (**as2-** alters (**ex-** “out, away,” and the **base** **say2** originally meant “drive, draw, move” – but in Latin meant “to weigh.”

Etymology. Etymology is the study of the origins of words and the routes they took getting into English. The etymological information in a good desk dictionary like the *American Heritage Dictionary* or the *American Heritage Student Dictionary* can help composition students think of things to say about their topics as they find unifying connections among what at first may have seemed to be unrelated words and ideas. It can help them keep their minds on their topics, see useful analogies, and create pertinent metaphors. And it can help them develop their reasoning skills, as they sort, discriminate, and link the ideas and forms they find in their words’ histories.

Working with etymology can also help spelling students see some of the connections that hold our spelling system together. These connections can help increase a sense of ruliness and order in our spelling – and thus ease and strengthen learning. For more on etymology and its uses in the classroom go to “Some Uses of the Sources Field” in [Introduction to CommonWords](#), also [Lineages from Indo-European Roots](#) and [Why Study Indo-European Roots](#).

Evolution. Back in the Middle Ages English spelling was a tangle of variant spellings, driven primarily by wide differences in dialects and pronunciation. For instance, the *OED* lists about 50 different early spellings of the relatively simple word *harbor*. But as the language evolved from [Old](#) to [Middle](#) to [Early Modern](#) English, that variation gave way to a high degree of standardization – enough so

that by 1600 nearly every English word had one and only one standard spelling. See [Standardization in Early English Orthography](#). The following is an example of word endings evolving to be more similar to one another in order to highlight the parallel functions of the words: Old English *mōdor*, *brōthor*, *fæder*, and Old Norse *systir* evolve to *mother*, *brother*, *father*, *sister* – all with the common [ər] ending spelled <er>.

That evolution to regularity continues as foreign adoptions are adapted to fit the English spelling system – see, for instance, [foreign noun plurals](#) – and as nonregular native spellings are rendered more regular. For instance, verbs that traditionally indicate the past tense with *-t*¹ often acquire a variant with the regular *-ed*¹: *burn*, *burnt*, *burned*; *dwell*, *dwelt*, *dwelled*; *kneel*, *knelt*, *kneeled*; *spell*, *spelt*, *spelled*. British spelling tends to be more conservative than American towards such changes, consistent with the differences in attitude between [Samuel Johnson](#) and [Noah Webster](#). See [British and American spelling](#) and [Metaphor](#).

Excel, excellent. From the modern point of view the major question here is “Why the <ll> in *excellent*? Though the <cel> is stressed in *excel*, in *excellent* it is not. Thus, *excellent* would appear to be a holdout to the Twinning Rule, which would require stressed <cel> in both words. From the historical point of view a better question would be why isn’t *excel* spelled <excell>? Both *excel* and *excellent* come from Latin by way of French, and both languages had <cell>. In fact, *excel* was regularly spelled *excell* up through the 17th century. The [OED](#)’s earliest citation of *excel* is in the 18th century.

Actually, the contraction of <ll> to <l> has been quite common in English, especially in stressed final syllables. For instance, the variants *fulfill* and *fulfil* are from *full* plus *fill*. In the more common spelling, *fulfill*, the first <ll> is contracted, and in the [variant](#) *fulfil* both are. Similarly the more or less archaic *withal* “besides, likewise, therewith” and its compound *wherewithal* are from *with* plus *all* and were often spelled with <ll>. See [All and Its Compounds](#). Similar contractions have occurred in, among others, *compel*, *Brazil*, *parallel*, *cartel*, *rebel* and *until* (vs. *till*) – all of which had earlier <ll>. See *AES*, pp. 440-41.

Except, accept. These two words are close enough in structure and pronunciation to create problems for spellers. They both contain the [base](#) *cept* “grasp, take, seize.” The [prefixes](#) tell the story: *Accept* contains the prefix (*ac*¹-, an [assimilated](#) form of (*ad*- “to, toward.” And when you accept something, you do take it toward you. *Except* contains the prefix (*ex*- “out, away.” And when you except something, you take it away or leave it out.

There are other pairs of words that have some form of the prefixes (*ad*- and (*ex*-: with the same base:

- **access** (*ad*+*c*+*cess*¹ vs. **excess** (*ex*+*cess*¹ and **accede** (*ad*+*c*+*cede* vs. **exceed** (*ex*+*ceed*): The bases *cess*¹, *cede*, and *cede*’s rare [variant](#) *ceed* mean “go, yield, come.” When you access something, you basically go to it or come to

it, but an excess is a going away, in the sense of going beyond some limit. To accede means to come to, while to exceed is basically to go beyond. Choosing between the <ceed> and <cede> spellings can be helped by this little [mnemonic](#): “If you **proceed** and do not **exceed**, you will **succeed**,” which lists the three instances of <ceed>.

- **accuse** (ad+c+cuse vs. **excuse** (ex+cuse): The base *cuse* means “reason, purpose.” To accuse someone of something is to assign a certain reason or purpose to him, while to excuse someone of someone is to take that reason or purpose away from him.

- **affluent** (ad+f+flu1+ent) vs. **effluent** (ex+f+flu1+ent): The base *flu1* means “flow, swell.” The adjective and noun *affluent* have the sense of flowing toward or swelling, while *effluent* means something that is flowing away.

Explication. Explication is an analysis meant to unfold information in written words, information that is not just useful to describing and understanding written English, but also to teaching and learning it. Explication attempts to do so by identifying the basic units in written words – that is, the [elements](#) and [particles](#). It also shows the historical [processes](#) – such as [assimilation](#) and [palatalization](#) – and the [procedures](#) that are followed when the elements [concatenate](#) – such as [simple addition](#), [final <e> deletion](#), and [twinning](#). To find information about the elements and particles in an explication, including those with index numbers, you can check the CommonWords and Lexis databases on this website. For more on explication see “The Explication of Written Words” (*AES*, pp. 32-66) and [On Explication](#) in the Short Articles venue of this website.

Finally, finely. Most commonly these two [adverbs](#) are [homophones](#), pronounced [fɪn^ll̩ē], though sometimes you will hear *finally* pronounced with three syllables, [fɪn^lə·l̩ē]. *Finally* explicates to fin4+al)1+ly)1; *finely* to fine1+ly)1. Both *fin4* and *fine1* come from a Latin word that meant “limit, boundary.” That *fin4* is the same as the *fin* you see at the end of French movies, meaning “end.” Early on *fine* meant “of the highest quality” but it has come most commonly to mean “consisting of small particles.”

Folk etymology. See [Metaphor](#).

Fossils. In English spelling a fossil is a letter that earlier served a function but no longer serves that function and has not acquired a new one. Most fossils are silent final <e>’s that are in their words only for etymological reasons. Most fossils are in words from French; fewer are in native words. In French words final <e> marked feminine gender, and since English does not inflect words to distinguish gender, that function was lost but even in words in which the now silent final <e> has no new function it continues in the spelling: *avalanche*, *brassiere*, *cigarette*, *clientele*, *finesse*, *impasse*, *medicine*, *troupe*. Some native English words contain fossil final <e>’s: *come*, *done*, *forbade*, *gone*, *none*, *some*. In some suffixes there are fossil silent final <e>’s when the suffix is unstressed: In the verb *approximate* the suffix

-ate) is stressed with long [ā], but in the adjective *approximate* -ate) is unstressed with short [ī]. Also with -ate) are words like *certificate* and *immediate*. Similar cases involve the suffixes -ite), -ure), and those spelled <ine>: *composite*, *definite*, *favorite*, *infinite*; *capture*, *culture*, *failure*, *pleasure*; *discipline*, *feminine*, *masculine*.

It would be possible to treat as fossils certain letters in simplifications. For instance, in the simplification <mb> as in *limb*, one could treat the as a fossil, a letter that has lost its earlier function of spelling [b]. I have chosen not to follow that line of analysis, which seems to me to get more complicated. AES, pp. 148-54.

French influence. In 1066 England was conquered by the Normans, [Vikings](#) who had settled in northern France roughly a century earlier. Over time the Normans (or “North Men”) had adopted their version of French, and after the [Norman Conquest](#), Norman-French became the language of power and education in England. Over the centuries, due largely to its interaction with English, the language of the common people, and with Latin, the language of the church, Norman-French evolved into the dialect known as Anglo-Norman. Although [adoptions and adaptations](#) from French go on today, a huge number of them came through Norman-French during the Middle Ages, many of them replacing native English words. Some scholars estimate that about 45% of all English words are from French. See [Caxton](#) and [Norman scribes](#).

French Lemon (Stress Frontshift) Rule. Words in French carried stress on the final syllable unless that syllable was a weak <e>, in which case stress fell on the next to final syllable. As French [adoptions](#) were integrated into English, the stress shifted forward, especially in nouns and in line with the native English pattern of stressing the first syllable of the base. But before the stress frontshifting occurred, French adoptions would have been pronounced with the first vowel weakly stressed and either reduced or short. Then, when the stress moved forward in the word, these vowels, now stressed, would be unlikely to lengthen. As a result there are in English hundreds of French [adaptions](#) that have short stressed vowels in patterns that would lead us to expect long vowels. This stress frontshifting preempts the more general [VCV vs. VCC](#) pattern, which stipulates that a stressed vowel letter followed by a single consonant which is in turn followed by another vowel letter will be orthographically long, as in a words like *demon* and *dame*.

However, in a French adaption like *damage*, although the stress is on the first vowel, which heads a VCV string, that head vowel is short, [ă]. And the spelling is with single <m> rather than <mm>, not **dammage*, with the VCC pattern normal for medial short stressed vowels. This preemption of the VCV vs. VCC pattern is perfectly regular in French adaptations. Some examples of the non-French and French contrast: *demon* vs. *lemon*; *yodel*, *model*; *molar*, *scholar*; *driver*, *river*; *specious*, *precious*; *navel*, *gravel*. For more on the Stress Frontshift Rule see AES, pp. 127-30 and [Standardization in Early English Orthography](#) in the Short Articles venue of this website.

Frequentatives. A frequentative is a word that indicates repeated action. The suffixes *-el*², *-l*¹, *-le*¹, and *-er*⁰³ mark frequentatives – as in the verbs *drivel*, *snivel*; *drawl*, *snarl*; *babble*, *crumble*, *jiggle*; *bicker*, *clatter*, *flutter*. Frequentative verbs are often **converted** to frequentative nouns – *drivel*, *drawl*, *snarl*, *clatter*. A few frequentative verbs are formed by **reduplication** of a monosyllable – as in *coo-cooing* or *bob-bob-bobbing*. And a few frequentative nouns can be formed by combining two different vowel sounds in the same word – as in *teeter-totter*, *pitter-patter*, *chitchat*, etc.

Fricative sounds. Fricatives are **consonant sounds** articulated with enough closure of the vocal tract to produce friction – [v] as in *verve*, [f] as in *fluff*, [θ] as in *thin*, [ð] as in *then*, [z] as in *zebras*, [s] as in *sass*, [ʒ] as in *azure*, [ʃ] as in *shush*, [h] as in *hurt*.

Futhorc. The futhorc was the runic alphabet used by the Anglo-Saxons. See [Runes](#).

Genitives. See [Possessives](#).

Germanic languages. Germanic is one of the 15 or so branches of languages in the **Indo-European language** super-family. The Germanic branch is traditionally divided into three: North Germanic, which includes Icelandic, Faroese (spoken in the Faroe Islands of the north Atlantic), Norwegian, Swedish, and Danish; West Germanic, which includes English, Frisian (spoken in the Frisian Islands of the North Sea, the language closest to English), Flemish (the Dutch language as spoken in Belgium), Dutch, Afrikaans (spoken in South Africa), German, Yiddish; and East Germanic, which includes only the now extinct Gothic. There is no Southern Germanic branch. See [Norse and Anglo-Norse](#) and “The Family of Languages” in the [Lineages from Indo-European Roots](#) venue in this website.

Gerunds. A [present participle](#) used as a noun.

Glides. A glide is the transitional sound created when moving from one sound to another. One such glide is usually spelled <i>, rarely <y> or <e> – as in *azalea*, *canyon*, *civilian*, *million*, *onion*, *savior*, *spaniel*.

Glottal sounds. Glottals are **consonant sounds** produced well back in the mouth with closure at the glottis at the top of the vocal cords. The only modern English glottal sound is [h].

Great Vowel Shift. The Great Vowel Shift was a huge shift that occurred in the pronunciation of English vowel sounds, especially long vowels. It started around 1350 and was for the most part finished by 1600, though changes do continue. It is a complicated affair and not entirely understood, but we can make just two general points:

First, in [Middle English](#) long vowels had Continental values – that is, the sounds we hear today in Italian and Spanish. For instance, the long <i> in Middle English was pronounced [ē] as it does in, say, *burrito*; the long <a> was pronounced [ä] as it is in *sonata*. Today due to the shift, long <i> in English is pronounced [ɪ] as in *bite*, and long <a> is pronounced [ā] as in *bait*. These and similar shifts account for much of the very different sound of English as compared with other European languages.

Second, since the spoken language changes much faster than the written, and since English spelling was becoming standardized in late Middle and [Early Modern English](#) (see [Standard Written English](#)), modern spelling in some respects does a better job of spelling earlier English than the English of today.

Holdouts. For two reasons I prefer the word *holdout* to the overused, and usually pejorative, *exception*. First, *exception* has acquired a bad reputation in English spelling, and is often used in the argument that our spelling system is ramshackle and essentially hopeless, which it is not. Folks tend to be too quick to label some spelling as an exception. Second, *holdout* does a better job of suggesting that in time we may learn enough about English spelling that this spelling can be treated as regular. And *holdout* better fits the step-by-step strategy that I advocate for dealing with spellings and whose goal is to make any spelling as rational and systematic as possible:

Step one: Try to include it within a pattern, procedure, or process that is universal and ruly in the system. For instance, to explain the <tt> spelling of [t] in, say, *lettuce*, treat it as an instance of the tactical contrast [VCV vs. VCCV](#).

Step two: Failing step one, include the spelling in a more localized subpattern or subprocess, which can preempt a more general rule. For instance, to explain the <ck> spelling of [k] in *picnicking*, treat it as an instance of the [doublet equivalent](#) <ck> used when adding *-ing*)¹ to *picnic*, since normal [twinning](#) would lead to *picniccer, pronounced with [ks], not [k].

Step three: Find a historical reason for the spelling – for instance, treat the final in the word *bomb* as a [simplification](#). And notice, too, that sometimes you can still hear the in *bomb* – for instance, in *bombadier* or *bombard*.

Step four: Failing steps one, two, and three, list the spelling, describing its irregularity and relating it to larger, more rational patterns and rules within the system – for instance, the <or> spelling in *forty*, as contrasted with *four*, *fourteen*, *fourth*. Historical note: Before the 15th century the spelling was commonly <our>. *Forty* appeared in the 15th century and dominated thereafter. Why *four* went one way and *forty* another is not clear, but it may have something to do with the fact that each spelling is a simplification of the

Old English *fēower* “four” and *fēowertig* “forty.”

Homonyms, homophones, homographs. Basically the words *homonym* “same name” and *homophone* “same sound” refer to two or more words that have the same sound, sometimes the same spelling, but different senses – for instance, *bear1* “to carry” and *bear2* “large mammal,” or *bear1*, *bear2*, and *bare*. *Homograph* “same letters” refers to two or more words that have the same spelling but different sounds and senses: *wind1* “moving air” pronounced [wɪnd] and *wind2* “to wrap” pronounced [wɪnd]. Homonyms and homophones pose problems for spellers – pairs like *alter*, *altar* and *council*, *counsel* can be tough. And CommonWords lists 747 words that have homophones. See also [Synonyms](#), [antonyms](#), [pseudonyms](#), [heteronyms](#), [acronyms](#)

Hyphen. A hundred or so years ago I took a course in grammar from Porter Perrin, a delightful, pipe-smoking, gentle man. A distraught student asked him about the use of hyphens. Dr. Perrin turned and stared out the window, took a few puffs on his pipe, and said, wistfully, “Anyone who takes the hyphen seriously shall surely go mad,” a paraphrase from the Oxford University style book. A look at the three-and-a-half page discussion of the hyphen in Dr. Perrin’s *Writer’s Guide and Index to English* (Scott, Foresman: 1950) confirms that judgement. But the following may help some. Use a hyphen:

- to mark the division of words at the end of a line
- after prefixes that end with the same vowel letter with which the stem begins: *re-elect*
- to avoid confusion with other words: *re-cover* “cover again” vs. *recover* “get back”
- in written-out numbers from *twenty-one* to *ninety-nine*
- in names of *in-law* family relationships: *mother-in-law*, *sister-in-law*
- in some other [compound words](#):

In general modern English uses fewer hyphens than it did in the past. So the best advice here remains “Check a current dictionary.”

<I> before <E>. Perhaps the best known [mnemonic](#) device for English spelling is “It’s <i> before <e> except after <c> or when sounded [ā] as in *neighbor* or *weigh*.” And it’s a useful jingle: When spelling [ē], it is regularly <i> before <e> except after <c>. Thus it is <ie> in *achieve*, *belief*, *grieve*, *hygiene*, *piece*, *shriek*, but <ei> in *ceiling*, *deceit*, *perceive*, *receive*. The only known holdouts with [ē] spelled <ei> after something other than <c> are *protein*, *seize*, *weir*, *weird* – and *either*, *neither*, *leisure*, the last three of which have variant pronunciations without [ē]. The only known holdout with [ē] spelled <ie> after <c> is *financier*.

The jingle also says that it is <ei> rather than <ie> when you are spelling [ā], a generalization with no known holdouts: *eight*, *neighbor*, *reign*, *vein*, *weigh*.

Expanding on the jingle somewhat, when you are spelling [ī], it is <ie> in final position (*die*, *hie*, *lie*, *pie*, *tie*, *vie*), but <ei> in initial and medial position (*eiderdown*, *height*, *kaleidoscope*, *poltergeist*, *seismic*, *sleight*, *stein*). The only known holdouts

are *fiery* and *hierarchy*, with <ie> in medial position.

So far as spelling short vowels is concerned, the jingle holds quite well, the only known holdouts being *counterfeit*, *foreign*, *forfeit*, *heifer*, *sovereign*, *surfeit*—all of which have <ei> after something other than <c> (and three of which contain the same bound base, *+feit*). The number of holdouts is quite modest in view of the hundreds of words that are covered by the jingle, especially if it is expanded to cover long <i>.

Illusion, allusion. The base of these two near [homophones](#) is *lus1*, which originally meant “to play, jest.” *Allusion* came to us by way of a Latin word which kept that original sense, but *illusion* comes from a Latin word with a more pejorative sense, “to mock.” You have to pay special attention to the first vowel in each word: <i> pronounced [ɪ] in *illusion*; <a> pronounced [ə] in *allusion*.

Imitative. In Lexis and CommonWords *imitative* is used to refer to what is sometimes called onomatopoeic or echoic words. An imitative word sounds like the thing it refers to: *beep*, *click*, *hum*, etc. There are 83 imitative words listed in CommonWords, in Lexis 454. With some imitative words it is hard to say what exactly is being imitated: *boudoir*, *gallimaufry*, *obstreperous*.

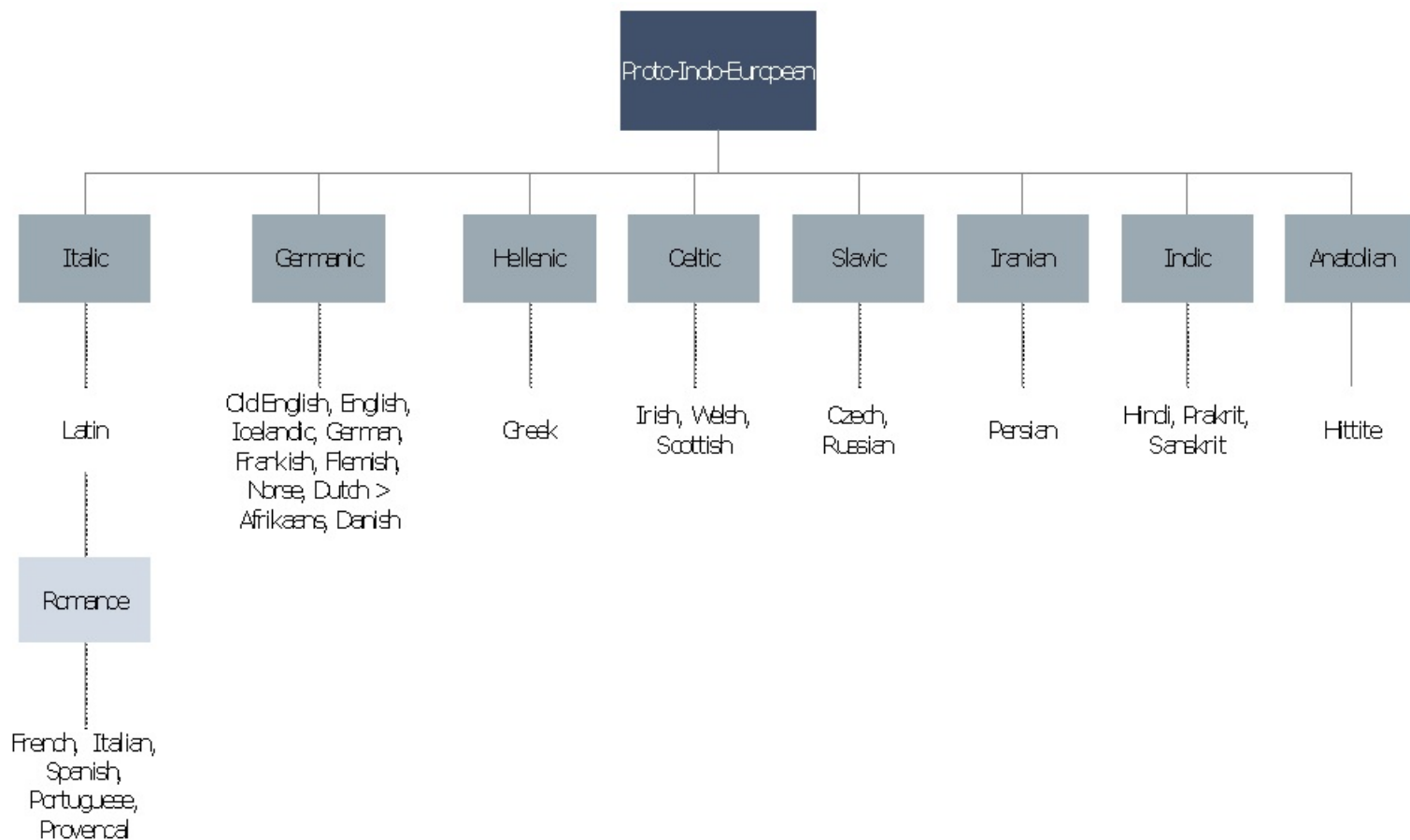
Imitative language is a mainstay in poetry, even though the individual words may themselves not be particularly imitative – as in these lines from Mathew Arnold’s “Dover Beach” describing the sound of the waves washing up on the shore of southern England:

Listen! you hear the grating roar
Of pebbles which the waves draw back, and fling,
At their return, up the high strand,
Begin, and cease, and then again begin,
With tremulous cadence slow, and bring
The eternal note of sadness in.

The notion that all language originated in the imitation of natural sounds – the so-called bow-wow theory – is now mostly discredited, but surely natural sounds are the source of several of our words.

Indo-European languages. English is one of several hundred languages in the Indo-European super-family, which includes languages in the Slavic, [Germanic](#), Celtic, Italic, Hellenic, Anatolian, and Indic families, and several others not represented in [CommonWords](#). In the chart below languages appear unboxed, the Romance sub-family in a very light gray box, families in darker grey, the Indo-European super-family in darkest gray.) Proto-Indo-European, the mother tongue of the Indo-European super-family, is thought to have been spoken around 5000 B.C. in the area north of the Black and Caspian Seas. Over the millennia the Indo-Europeans spread east to India and central Asia, west to modern Greece, Italy, France, Spain, south to Iran, Pakistan and Afghanistan, and north to Germany,

Britain, and Scandinavia. The spread continues today, especially as English becomes an increasingly international language.



See also “The Family of Languages” in the [Lineages from Indo-European Roots](#) venue in this website.

Inflection, inflected forms. Inflected forms are words formed by adding [inflectional suffixes](#) to nouns, verbs, adjectives, or adverbs.

Innocence, innocents. *Innocence* (in1+noc+ence) refers to the quality of being innocent, its *-ence*) suffix marking it as an abstract noun. The *-ent*) suffix in *innocents* (in1+noc+ent)+s3) forms adjectives and non-abstract nouns. The base *noc* “death, harm, injure” is negated by the prefix (*in1*). So an innocent isn’t likely to hurt you. The issue here is to distinguish between the abstract noun on one hand and the [homophonic](#) non-abstract plural noun on the other. There are actually a number of *-ence*) and *-ent*) pairs in English – for instance, *adolescence* (ad+ol1+esc)+ence), *adolescents* (ad+ol1+esc)+ent)+s3); *fluorescence* (fluor1+escé)+ence), *fluorescents* (fluor1+escé)+ent)+s3); *magnificence* (magni+fic)+ence), *magnificents* (magni+fic)+ent)+s3). But they shouldn’t create the problems that *innocence* and *innocents* can, because beyond the three listed above, very few of the pairs have a plural noun ending in <ents>. In fact you have to have a pretty big dictionary to find *magnificents*.

Insulators. There are two letters that routinely serve to cover, or insulate, other letters. The most common is silent final <e>, which insulates <s, z, u, v> at the end of words – as in *lapse, bronze, plague, serve*. See [silent final <e> functions and deletion](#) for more details. In some <gu> spellings the <u> insulates a following <e, i, y> to avoid the look of a soft [j] sound: *guest, plaguing, plaguy*. See [soft and hard <c> and <g>](#).

Intensifiers. An intensifier is a word or word part that increases the intensity of the word it modifies. In English the most common intensifier is the word *very*. Here are a few of the several dozen English intensifiers, with example phrases: *awful* “awful rich,” *bloody* “bloody amazing,” *dead* “dead wrong,” *real* “real tall,” *really* “really cold,” *so* “so stupid,” *super* “super hot,” *too* “too tense,” *wicked* “wicked smart” – plus many *-ly*)¹ adverbs like *extremely*.

Lexis lists 35 prefixes that are tagged as rarely or sometimes or often intensifiers. But in nearly every case the intensification is hard to discern in modern words – perhaps *-per*)¹ in *perfect* and *perceive* and (*be-* in *belief* and *believe* would be instances. Also two suffixes are tagged “intensifier”: the quite productive *-ard*)¹ as in *blizzard, drunkard*, and the less productive *-ee*)⁴ as in *whoopee, sirree*. And we use some prepositions after verbs to intensify the action: there’s a difference between merely burning something and burning it up or down.

Interdental sounds. Interdentals are [consonant sounds](#) pronounced with the tongue between the upper and lower teeth – [th, th] as in *then* and *thin*.

-ize), -ise)¹. These two [suffixes](#) usually form verbs – and a very few nouns. In America we prefer *-ize)*, while in Britain they prefer *-ise)*¹, though they use both. (See [British and American spelling](#).) About the only common American words that always take *-ise)*¹ are *advertise, chastise, exercise, exorcise, franchise*, and the noun *merchandise*; the verb *merchandise* can take either. The Lexis database lists 69 words with *-ise)*¹, 2,875 with *-ize)*. When in doubt, *-ize)* is clearly the better bet.

Jespersen, Otto. Otto Jespersen (1860-1943) was a Danish linguist who studied and wrote extensively about English grammar. His many works include *Growth and Structure of the English Language* (1905), *Language: Its Nature, Development and Origin* (1922), *The Philosophy of Grammar* (1924), and *Modern English Grammar on Historical Principles* (7 vols., 1909–1949), the first volume of which, *Sounds and Spellings*, is particularly useful to students of English spelling.

Johnson, Samuel. Samuel Johnson (1709 – 1784) was an English writer who made lasting contributions to English literature as a poet, essayist, moralist, literary critic, biographer, editor and lexicographer. He is sometimes said to be the most distinguished English man of letters. His 1755 *A Dictionary of the English Language* was the first true English dictionary and set the standard for British English spelling. (See [British and American spelling](#).) At times his sense of humor showed through,

as when he defined a network as “any thing reticulated and decussated, at equal distances, with interstices between the intersections,” or when he defined oats as “a grain, which in England is usually given to horses, but in Scotland supports the people.”

Labiodental sounds. Labiodentals are **consonant sounds** pronounced with the lower lip close to or touching the upper teeth – [v, f], as in *verve* and *fife*.

Latin alphabet. By the time of classical Latin, towards the end of the Roman Empire, the Latin (sometimes called Roman) alphabet consisted of 23 letters, with no <j>, <u>, or <w>. In the 7th century Irish and Roman **missionaries** in England began to replace the **runes** of the old Germanic runic alphabet with letters from the Latin, and during and after the 11th century the replacement was extended by the **Norman scribes**. The <j, u, w> that were missing in the classical Latin alphabet were added to the English alphabet through a fairly complex set of distinctions:

In Old English the letter <i> usually spelled a vowel sound but sometimes it spelled the consonant sound [y], which the Norman scribes spelled with continental <j>. By the 17th century writers distinguished <i> and <j>, which was an elaboration of <i>, with the vowel sounds written <i> and the consonant sound [j] written <j>.

Roman <v> could spell either the vowel sounds we spell with <u> or the consonant sound [v], sometimes [w]. By the 17th century the letters <u> and <v> were distinguished with <u> as usually vowel, <v> as consonant.

In Old English [w] was spelled <u> and <uu> (thus its modern name “double <u>”), and sometimes double <v>, <vv>. In the 8th century the rune wynn <ƿ> was used to spell [w], but later Norman scribes replaced wynn with <w>, the ligature – or joining – of the old <vv>.

Latinization. During a brief classical revival in the 16th century some words were respelled to show their Latin sources. For instance, our word *debt* was commonly spelled <dette> in **Middle English**, but a was introduced, with no change in pronunciation, to show its Latin source *dēbitum*. Other examples include these: Middle English *enditen* became **Early Modern** *indict* after the Latin *indictare*. Middle English *faute* became Early Modern *fault*, with a change in pronunciation, after Latin *fallita*. Middle English *langage* became *language* after Latin *lingua*. In some cases the motivation may not have been so much an enthusiasm for Latin as a distaste for French, the Hundred Years’ War with France having finally ending in the late 15th century: Middle English *columpne*, which came from French, became *column* after Latin *columna*. *Solemn* was the same.

Lie, lay. These two **verbs** have caused trouble for 800 years, and although they are not strictly speaking a spelling problem, they are worth a few words here. *Lie* is an intransitive verb – that is, it does not take a **direct object**; *lay*, which does require a direct object, is transitive. *Lie* means basically “to recline,” as in *I lie on the couch every Sunday until noon.* *Lay*, on the other hand, means “to place something down, to cause it to lie,” as in *I lay the mail on the hall table every afternoon.*”

Beyond their similarity of meaning, their inflection reveals another source of confusion:

	Lie	Lay
1 st & 2 nd person singular, present tense	<i>lie</i>	<i>lay</i>
3 rd person singular, present tense	<i>lies</i>	<i>lays</i>
Past tense	<i>lay</i>	<i>laid</i>
Past participle	<i>lain</i>	<i>laid</i>
Present participle	<i>lying</i>	<i>laying</i>

The confusion is aggravated by the fact that the 1st and 2nd person present of *lay* and the past tense of *lie* are [homonyms](#), spelled <lay> and pronounced [lā].

Long vowels. In Modern English the long vowels are [ā] as in *bait*, [ē] in *beet*, [ī] in *bite*, [ō] in *boat*, [ū] in *boot* and [yū] in *beaut*. Also see [Vowel sounds](#) and [Great Vowel Shift](#).

Lose, loose. These two are not quite [homonyms](#) and not quite homographs. They and their [present participles](#), *losing* and *loosing*, can cause problems for spellers. Remember that the past tense of *lose* is *lost*, both with a single <o>. And remembering the old expression “loosy-goosy” may help with the <oo> in *loose*.

Medal, metal, mettle, meddle. *Medal* and *meddle* are [homophones](#), as are *metal* and *mettle*. But because the sound [t] in the middle of words can sound very much like [d], all four of them are near homophones. *Medal* and *meddle* are unrelated in meaning or history, but *mettle* was originally a spelling variant of *metal*, and over the centuries their spelling and meaning have diverged. *Medal* and *metal* are both instances of the [French Lemon Rule](#). *Mettle* and *meddle* both contain [VCCle strings](#). The base of *medal* is *med4* “middle, half,” apparently due to an early use of the word to refer to a coin worth half a Roman denarius. The base of *meddle* is *medd1* “mix” and the suffix *-le*)1 marks [frequentative](#) verbs.

Metaphor. In metaphor a word or phrase is used to refer to something that is categorically different from, but is perceived as being in some important way similar to, what it normally refers to – as when Keats refers to a Grecian urn as a “foster-child of silence and slow time,” encouraging the reader to explore the similarities. But metaphor is not restricted to poetry. It has played a major role in the evolution of English, including English spelling: For instance, it is involved in the often-maligned **folk etymology**,

by which users use analogy, or metaphor, to make an unusual form more similar to some perceived pattern, as in the following:

Original Word	Evolved To	By Analogy With
<i>chaise longue</i> “long chair”	<i>chaise lounge</i>	<i>lounge</i>
<i>ele, eill</i> “wing of a church”	<i>aisle</i>	French <i>isle</i> and <i>aille</i> “wing”
<i>formest</i> (<i>form</i> “first” + <i>-est</i>)	<i>foremost</i>	<i>fore</i> and <i>most</i>
<i>igland</i>	<i>island</i>	<i>isle</i>
<i>pentice</i>	<i>penthouse</i>	<i>house</i>
<i>rime</i>	<i>rhyme</i>	<i>rhythm</i>
<i>shame-fast</i>	<i>shamefaced</i>	<i>face</i>
<i>up so doun</i> “up as if down”	<i>upside down</i>	<i>side</i>

But at an even deeper level metaphor can be said to structure how we think and talk about a given topic. For instance, the unconscious metaphor “Love is madness” leads to our use of such language as “I’m *crazy* about her. She *drives me out of my mind*. He constantly *raves* about her. He’s *gone mad* over her. I’m just *wild* about Harry. I’m *insane* about her.” (G. Lakoff and M. Johnson, *Metaphors We Live By* (Chicago and London: U. of Chicago Press, 1980), p. 49. See [Analogy](#) and [Metonymy](#), also For more on metaphor go to “Metaphor and Metonymy” in [Orthography as an Evolving Complex System](#).



Metonymy. Metonymy and [metaphor](#) are two basic methods of thought and thinking. In metaphor a word is used to refer to something that is categorically different from, but is taken as being in some way similar to, what the word normally refers to. So metaphoric relationships are based on similarity. Metonymic relationships are not based on similarity but rather on, broadly, contiguity – that is, on the way things can be associated or brought together – for instance, as part-and-whole, cause-and-effect, more-or-less, first-and-next, thing-and-quality, spatial or temporal adjacency.

The most common metonymy is synecdoche: the identification of a whole thing with one of its parts, as when we speak of several head of cattle or when we speak of the American government as Washington or of a credit card as plastic. In the evolution of a language a common form of metonymy is synecdochic clipping, or abbreviation – as when polysyllables like *gasoline* and *automobile* are clipped to *gas* and *auto*.

For more on metonymy go to “Metaphor and Metonymy” and “Metonymic Variation” in [Orthography as an Evolving Complex System](#).

Middle English. Middle English is English as it was spoken and written from about 1150 to 1500. It was a period of great change in how the language sounded, how sentences were constructed, and how words were spelled. This change was in large part due to English’s interaction with

Norman-French and Anglo-French (See [Norman scribes](#), [Norman Conquest](#)) and the Anglo-Norse dialects spoken by [Vikings](#) and their descendants who settled in eastern England. Due mainly to geo-political reasons, by the 14th century English was largely reestablished as the official language of England. And by the 15th century Anglo-French had all but disappeared, and [Standard Written English](#) had begun to develop.

Minims. In medieval script a minim (Latin, “least”) was a small downstroke rather like j used to form letters like <u, n, m, i>. Since the scribes tended to crowd letters and words together, uninterrupted strings of minims could produce problems for readers. For instance the word *minim* itself could become something like  – and the <um> in the Old English *cuman* “come” would contain the string “. [Norman scribes](#) often changed <u>’s to <o>’s to break up problematic strings of minims, thus our modern word *come*.

Missionaries. During and after the 6th century, there were several Christian missions from Ireland to the north of Britain. Over the following centuries the Irish missionaries built abbeys and monasteries throughout Britain, especially in the north. In 597 Pope Gregory sent a mission from Rome to southern England, led by Augustine, who became the first Archbishop of Canterbury. These Gregorian missionaries were much more active in converting the pagan Britons and Anglo-Saxons than were the Irish missionaries in the north.

The Irish missionaries wrote in an Irish version of the [Roman alphabet](#) called the Insular hand. Though it was the script used in many Old English manuscripts, it had little if any lasting impact on the development of English spelling. English spelling was much more influenced by the dialect of Wessex and [Alfred the Great](#), which was based on the Roman alphabet as it had been spread in the south of England by the work of the mission of Augustine.

Misspellings. As any teacher well knows, misspellings come in a myriad of shapes and sizes. Some are really wrong (*sufishuntly) and others are heart-breakingly close (*suffitiently). But with our all-or-nothing approach to spelling, both *sufishuntly and *suffitiently are equally incorrect. Alas, we cannot say things like “You’re getting better. You spelled this word 85% correctly.”

The following are common misspellings taken from [A Casebook of Misspellings, with Observations](#). The misspellings are listed with a leading asterisk:

Some are due to errors in [twinning](#):

- compelling, *compeling
- forgotten, *forgoten

- jarring, *jaring
- patrolling, *patroling
- picnicking, *picnicing The insertion of <k> is a form of twinning.
- shoveling, *shovelling

Some are due to errors in [silent final <e> deletion](#):

- spacing, *spaceing
- spiny, *spiney

Some are due to problems with [<i> before <e>](#):

- freight, *frieght
- receipt, *reciept

Some are due to problems with [hard and soft <c> and <g>](#):

- eligible, *eligable
- intrigue, *intrige
- serviceable, *servicable
- spaghetti, *spagetti

Many can be addressed with [explication](#):

- accessory, *accessory (ad+c1+cess1+ory) with *cess1* as in *recess*, *success*, *abscess*.
- amplifier, *ampliphier (ampl1+ify)+i2+er)01 with *-ify*) as in *dignified*, *gratify*, *identify*, *justify*, *modify*, *notify*, *qualified*, *terrify*, *testify*.
- dismissing, *dismissing (dis+miss3+ing)1 with (*dis-* as in *disagree*, *disappear*, *disappoint*, *discharge*, *discover*, *disease*).
- orientation, *oreintation, *orentation, (ori1+ent)+at)1+ion)1 with *ori1* “rising sun, east, place something to face east, place something correctly.”
- paralyzed, *paralized (para1+lyze+ed)1 with *lyze* as in *analyze*, *dialyze*.
- separate, *seperate (se+par03+ate)1 with *par03* as in *apparel*, *disparate*, *disparity*, *parade*, *separation*.

Some are due to over-simplified phonetics, as with the sounds [\[k\]](#) and [\[n\]](#) in

- chrome, *crome
- knack, *nack
- opaque, *opake

And some involve just plain odd words: *vacume rather than *vacuum*, *furlow rather than *furlough*, *ake rather than *ache*, *kernel rather than *colonel*. See also [Spelling Demons](#) and [Doublets Misspelled](#)

Mnemonic. (That <mn> is pronounced [n].) A mnemonic is a device for helping you remember. Probably the best known mnemonic starts out “Thirty days has September” And the best known mnemonic in spelling starts out “It’s [<i> before <e>](#)” For some other spelling mnemonics see [Capital, capitol](#); [desert, dessert, deserts](#), [accede](#). The word *mnemonic* is related to a large group of words dealing with the mind: *mental*, *maniac*, *reminisce*, *mantra*, *museum*, *amnesty*. It is from the name Mnemosyne, the Greek goddess of memory, mother of the muses.

Modern English. English as it has been spoken and written since roughly 1550 to the present. The evolution from [Early Modern English](#) to Modern English was gradual, so the dates given for the two tend to overlap.

Morphemes and Morphophonemics. Morphemes are the smallest content-bearing parts of spoken words. They are the spoken language's equivalents of the written language's [elements](#).

Four or five centuries after the [Norman Conquest](#) and with the development of [Standard Written English](#), English orthography had evolved well past its phonetic origins to a system that the Elizabethan Richard [Mulcaster](#) described as ruled jointly by sound, custom, and reason. English spelling is not simply phonetic; it doesn't relate spellings just to sounds but also to meaningful [elements](#), overriding sound changes. For instance, in *cats* the noun plural suffix *-s* spells the unvoiced [s], but in *dogs* it spells the voiced [z]. If it were not for the morphophonemic feature of English – that is, if English were strictly phonetic – we would have to have two noun plural suffixes – one spelled <s>, the other <z>. Or consider the base *sign*, which shows up with four different pronunciations in *sign* [sīn], *signal* [sīgˈnəl], *design* [dīˈzīn], *designate* [dēzɪˈgˌnāt]. Or consider the different pronunciations of the base *photo* in *photos* [fōˈtōz], *photography* [fəˈtɒɡrəˈfē], *photographic* [fōtəˈɡræfɪk]. Morphophonemics basically deals with the changes in sound that elements undergo in different contexts. For more details, see *EDLL*, *OCEL*, and “Post-Alphabetic Literacy” in [Orthography as an Evolving Complex System](#).

Mulcaster, Richard. In 1561 Richard Mulcaster (ca. 1531-1611) became the headmaster of England's largest school, the Merchant Taylor's School in London. In 1582 he published his spelling text, *The Elementarie*. He used a political allegory to argue that a mature spelling system has to do more than spell sounds, for sounds are too changeable and diverse. In the beginning, to paraphrase Mulcaster:

Sound was King, with complete dominion over spelling. But the sounds of speech vary so much from person to person, place to place, and time to time that eventually in the Kingdom of Sound, confusion set in. The unhappy people petitioned their King for relief, and in time they convinced him to have Custom and Reason join him in the rule of spelling. Reluctantly Sound gave up his complete dominion – though he remained the primary member of the triumvirate: Now English spelling would be controlled jointly by "the propriety of Sound," "the smoothing of Custom," and "the consideration of Reason." Sound remains primary, but his vagaries are made more sensitive to convention and word history because of the influence of informed Custom and more regular and ruly because of the influence of orderly Reason.

Mulcaster's very Elizabethan allegory is not just quaint. It reflects quite accurately the early history of our language: Originally the spelling of [Old](#) and [Middle English](#) was quite phonetic, and Sound was king. During the proliferation of dialects in the Middle English period and with the spread of literacy, this phonetically-based system led to considerable confusion. By Mulcaster's time the phonetic system was being replaced by one that also took into account the history and meaning of words and the demands for reason and regularity that one finds in any living system. Custom and Reason were given a larger role.

Mulcaster's language is very close to Modern English: In the sample below the accents over <o> and <e> indicate missing <n>'s, a contraction used to help typesetters justify the right margin. The <Ʒ> was a "long <s>" usual in initial and medial position and with the <sh> digraph. I'm not sure about the accent marks in *direct̃*. Beyond these essentially typesetting differences and with the exception of the relatively minor spelling differences in *waie* (*way*), *ar* (*are*), *discriptiõ* (*description*), *proprietie* (*propriety*), and *joyntlie* (*jointly*), Mulcaster's spelling is quite modern. (He is, of course, more generous than we in his use of commas):

The right writing of our English therefor by waie of discriptiõ is, a certain reasonable course, to direct̃ the pé by such rules, as ar moſt comformable, to the proprietie of *found*, the cõsideration of *reason*, & the smoothing of *custom* ioyntlie

See also [Standard Written English](#), [Morphemes and Morphophonemics](#).

Nasal sounds. Nasals are [consonant sounds](#) articulated through the nose – [m] as in *mom*, [n] as in *nun*, [ŋ] as in *song*.

Nonce words. The word *nonce* means something like "this particular occasion." A nonce word is a word made up for a particular, usually temporary, use. Nonce words often make use of established word endings. For instance, the *-nik* in the Russian *sputnik* led to such nonce words as *kaputnik*, *flopnik*, and *stayputnik* to refer to failed attempts to launch. Though most nonce words do not last long – only for the nonce – some do survive and become established in the English lexicon. For instance, Robert Heinlein in *Stranger in a Strange Land* coined *grok* to refer to a certain kind of intuitive knowing, which has caught on. And apparently any number of *-ology* words also started out as nonce words. Many remain so – such as *caneology* "the science of beating someone with a cane" and *dogology* "the science of dogs." Other apparent nonce *-ology* words that have become established are *Egyptology* and *neonatology*. Probably many or all of the thousands of words and meanings that appear for the first time in Shakespeare's writings were intended as nonce words.

Norman Conquest. In October 1066 at the Battle of Hastings in southeastern England, Duke William II of Normandy defeated the army of the English king, Harold II, who, along with his two brothers, was killed. On Christmas day 1066 William, now known as William the Conqueror, was crowned king of England. The Normans were [Vikings](#) who had settled in northern France and developed their version of French, Norman-French. For our interests the most important effect of William's conquest was that the Norman-French of the victors became the language of the ruling class in England, replacing Old English. It was the language of government, the schools, and of the Norman elite who replaced English land owners throughout the country. The commoners still spoke English, and Latin was the language of the church. Over time Norman-French evolved into Anglo-Norman, while the English of the mostly uneducated commoners evolved and simplified grammatically to something more like what it is today. By the 13th and 14th centuries French became less of a factor in England, but by then Old English had evolved into [Middle English](#). See [Norman scribes](#) and [French influence](#).

Norman scribes. After the [Norman Conquest](#) most of the writing was done by scribes who came from Normandy with their continental writing habits. They introduced a number of changes in English spelling: They replaced some [Old English](#) spellings with continental ones, and they introduced some spellings rarely, if ever, used in Old English. They replaced the Old English [runes](#) yogh <Ʒ>, thorn <þ>, and edh <ð>: They replaced yogh with <gh> in words like *right*, *brought*, *through* and with <y> in words like *year*, *ready*, *young*. They replaced thorn and edh with <th>. They replaced the usual Old English spelling of [kw], <cw>, with <qu>, and Old English <hw> with <wh>. In several Old English words they changed <u> to <o> especially adjacent to <n> and <m> to avoid strings of [minims](#) – for instance, in Old English *cuman*, the source of our word *come*. They used three letters that were rarely if ever used in Old English: <q, v, z>. To spell [ch] they increased the use of <ch> and <cch>, the latter of which in time became <tch>. They introduced the <sch> spelling of [sh], which in time simplified to <sh>. And they used <k> before letters that spelled front [vowel sounds](#) – <e, i, y>.

Norse and Anglo-Norse. *Norse* refers to the languages of the [Viking](#) invaders and others from ancient Norway, Sweden, and Denmark. Anglo-Norse was the dialect that evolved among the Norse settlers who occupied a large part of eastern England beginning in the 9th century. Since Norse and English are [Germanic languages](#), there are many similarities between them, and their interaction over time influenced both. Signs of the interaction are still with us – for instance, in the pair *shirt*, which is native Old English, and *skirt* from Norse. The [CommonWords](#) database lists 247 other words from Norse sources.

Nouns. One clue to identifying nouns is to say that a noun refers to a person, place, or thing – to which we might add *quality* or *act*. It's a good clue, but there can be problems figuring out exactly what a thing is – or a quality. And of course there can be some confusion separating an act (as a noun) and an action (as a verb). See [Conversion](#).

A second clue is “A noun is any word that does not end in -‘s) and fits into this slot: “**The _____ seemed okay**” – though it can be difficult at times to find a setting where such a sentence makes sense, especially with abstract nouns – as in “The freedom seemed okay.”

And a third clue is that several common suffixes regularly form nouns:

-age)	<i>package</i>	-ism)	<i>capitalism</i>
-ance)	<i>assistance</i>	-ist)1	<i>violinist</i>
-ary)2	<i>secretary</i>	-ity)	<i>sanity</i>
-ence)	<i>repentance</i>	-ment)	<i>government</i>
-er)01	<i>ruler</i>	-ness)	<i>toughness</i>
-ience)	<i>patience</i>	-or)2	<i>professor</i>
-ion)1	<i>solution</i>	-th)2	<i>growth</i>

Notice how many of these suffixes form abstract nouns that cannot be perceived by the senses – not seen nor heard nor tasted nor touched: *-ance*), *-ence*), *-ience*), *-ism*), *-ity*), *-ment*), *-ness*).

Noun plurals. Far and away most nouns form their plurals regularly by adding the suffix -s)3: *head, heads; barn, barns; car, cars; tree, trees*. After [voiceless](#) sounds, -s)3 is pronounced [s] as in *cats*, but after voiced sounds it is pronounced [z] as in *dogs*. Most compound nouns form their plurals regularly: *assistant directors, babysitters, sit-ins*. But, though regular, some can be surprising: *notaries public, commanders-in-chief, passersby*.

Singular nouns that end with a sibilant sound – that is, [s, sh, z, zh, ch] regularly take the suffix -es)2, pronounced [ɪz]: *kiss, kisses; fox, foxes; wish, wishes; buzz, buzzes; church, churches*. In nouns like *house* with its plural *houses*, the sound of the first <s> [voices](#) from from [s] to [z].

Singular nouns that end with <y> preceded by a consonant letter, regularly [change the <y> to <i>](#) and add -es)2: *cry, cries* *crɪ*1+*i*2+*es*)2. Also *flies, spies, tries*, etc.

Singular nouns that end with an <o> preceded by a consonant vary between -s)3 and -es)2. Most of them take the regular form, -s)3: *pianos, altos, twos, egos*. Many take either -s)3 or -es)2: *banjos, banjoes; zeros, zeroes; mottos, mottoes; innuendos, innuendoes*. With either of these sets it's always safe to use -s)3. But a few nouns that end with <o> preceded by a consonant take only -es)2, the most common being *echo, embargo, go, hero, Negro, potato, tomato*, and *veto*. With these eight the plural should be formed with -es)2. (When *hero* is used in the compound *hero sandwich*, its plural is often spelled *heros*.)

Seven nouns from **Germanic** form their plurals irregularly via **ablaut** – that is, by changing the internal vowel: *foot, feet; goose, geese; louse, lice; man, men; mouse, mice; tooth, teeth; woman, women*. Notice that in *woman, women* though the <a> changes to <e> their pronunciation is the same, but the pronunciation of the <o> changes from [ü] in *woman* to [ɪ] in *women*.

Even fewer plural nouns use the Germanic suffix *-en* or its expansion *-ren*): *brethren, menschen, oxen* – and *children*, which blends two Old English plural suffixes *-ru* and *-en*.

A few nouns – *elf, half, self, shelf, wolf* – change the final unvoiced [f] to voiced [v], change the spelling, and add *-es*: *elf, elves; half, halves; self, selves; shelf, shelves; wolf, wolves*.

Some foreign nouns retain their foreign plurals: *alga, algae; alumnus, alumni; analysis, analyses; criterion, criteria; larva, larvae; stimulus, stimuli*. Some foreign nouns have both foreign and regular plurals, the foreign plurals being more common in technical **registers**: *antenna, antennae, antennas; cherub, cherubim, cherubs; index, indices, indexes; minimum, minima, minimums; tempo, tempi, tempos; vertebra, vertebrae, vertebrae*.

Some nouns do not change to show plural: *deer, elk, fish, moose, sheep*. And most abstract nouns do not have plurals.

The plurals of letters and numbers use 's: *three r's and five 4's*.

Though the huge majority of nouns take the regular noun suffixes *-s* or *-es*, when in doubt, check a good dictionary.

Old English, or Anglo-Saxon. Old English is English as it was spoken from roughly the middle of the 5th century until the mid 12th century by which time it had evolved into **Middle English**. It developed in England among the Anglo-Saxon settlers – mainly the **Angles, Saxons, Jutes, and Frisians** from northern Europe. It is a **Germanic language**. Its early evolution was much influenced by the language of the **Vikings** and other Norse settlers and later by Norman-French, the language of the **Norman conquerors**. Old English literary works first appear in the 7th century. Old English is the language of *Beowulf*. After the Norman Conquest in 1066 Old English was replaced by Norman-French, as the language of power and schooling in England.

Old English was a heavily **inflected** language. For instance, the Old English version of our definite article *the* had 23 different inflected forms. Singular nouns were inflected for four cases – nominative (subject), accusative (direct object), dative (indirect object), and genitive (possessive). Pronouns were inflected for singular, plural, and dual numbers and for masculine, feminine, and neuter genders. By late Middle English, after centuries of English being the language of the unschooled, this complex system had simplified to basically what we have today, with less reliance on inflections and more on word order.

Open and closed syllables. Open syllables end with a **vowel sound**,

closed syllables with a [consonant](#). Thus, in *open*, the first syllable, [ō], is open; the second syllable, [pən], is closed. See [Syllables](#).

Oxford English Dictionary (OED). The *OED* is a multivolume dictionary that describes the history of English words as their senses and spellings changed from [Old](#) to [Middle](#) to [Early Modern](#) to [Modern](#) English. Work on it began in 1857, and until the late 1920's it was published as a series of short unbound fascicles. The first complete edition was published in 1928. There have been several supplements published since 1933, including a four-volume supplement published from 1972-1986. The second edition was published in 1989. In 2000 work began on a third edition, which is projected to be published in 2037. In addition to the print versions, the second edition is available on CD-ROM and on-line at [oed.com](#). The on-line version is upgraded every three months with new material prepared for the third edition. In all of its manifestations the *OED* is the essential guide to the lives of English words as they enter and sometimes leave the language and as their senses and spellings change.

Palatal sounds and their spellings. Palatals are [consonant sounds](#) articulated with the tongue against the palate, or roof of the mouth – [j, ch, zh, sh, y].

[j] In CommonWords [j] is spelled either <j> or <g> about 90% of the time, and it is spelled <g> almost three times as often as it is spelled <j>. It is spelled

- <j> usually in [element](#)-initial position (*jealous, jockey, rejoice* (*re+joice, sojourn (so1+journ)*), rarely in medial position (*banjo, cajole, pajamas, pejorative*), and in final position only in *raj*;
- <g> only before <e, i, y> (*genuine, magic, clergy, squeegee, origin*);
- <dge> only in final position after short vowels (*badge, fudge, lodge, midge, pledge*);
- <dj> only after (*ad- (adjective, adjourn, adjust, adjutant)*);
- <gg> only in *exaggerate*;
- <d> only before <u>: *gradual, individual, pendulum, schedule*.

AES, pp. 417-21.

[ch] About two-thirds of the time in CommonWords [ch] is spelled either <ch> or with the [doublet equivalent](#) <tch>. It is spelled

- <ch> in any position in the word (*achieve, cheese, church, duchess, launch, merchant, orchard, spinach, treachery*);
- <tch> always after short vowels, usually in word-final position (*batch, etch, hutch, notch, pitch, thatch*), but sometimes word-medial (*kitchen, ratchet, satchel*);
- <c> in Italian adoptions (*cello, vermicelli, concerto*);
- <tsch> in German adoptions (*kitsch, putsch*);
- <t> preceding unstressed <u> or <ion> (*actual, combustion*,

digestion, fortune, mortuary, suggestion, virtual). AES, pp. 412-17

[sh] In CommonWords [sh] is spelled <sh> or <t> about 85% of the time, and it's spelled <t> almost twice as often as <sh>. The following lists the nine spellings of [sh] in descending order:

- <t> preceding an unstressed <i> which is followed by a second unstressed vowel letter, commonly <ion> (*abbreviation, description, impatience, initial, notion, ratio*);
- <sh> nearly always in initial or final position (*bashful, fresh, mushroom, nourish, rubbish, shoulder, shush*);
- <c> preceding an unstressed <i> followed by a second unstressed vowel letter (*ancient, commercial, glacier, specialty, species, suspicion*);
- <ss> preceding <ion> or <u> (*assurance, commission, confession, expression, issue, pressure, session*);
- <s> preceding <ion> or <u> (*dimension, expansion, insure, mansion, sugar, sure, suspension*);
- <ch> usually in fairly recent French adoptions (*brochure, chagrin, Chicago, champagne, machine, mustache, parachute*) and *pistachio* (from Italian);
- <sc> especially in the base *sci*1 “know” (*conscience, conscious, omniscience, unconscious*);
- <sch> especially in words from German and Yiddish (*schlemiel, schmo, schnauzer, schnook, schwa*);
- <x> apparently only in *sexual*. AES, pp. 407-12

[y] In Old English until the 13th century [y] was spelled with the [rune](#) yogh, <ȝ>, then with <y>. It is spelled <y> about half the time:

- <y> in element-initial position (*beyond, yacht, yellow, youth, yule*);
- <j> in *fjord* only;
- <i> in the [y]-glide, unstressed and followed by a second unstressed vowel (*alien, billion, civilian, companion, dahlia, onion, spaniel*);
- <y> in the [y]-glide, in *lawyer* and *sawyer*. AES, pp. 459-60

[zh] In CommonWords [zh] is spelled <s> about 85% of the time; the rest of time it's spelled <g>:

- <s> preceding either unstressed <i> followed by another unstressed vowel letter or <u> (*casual, collision, enclosure, erosion, excursion, leisure, measure, usual, visual*);
- <g> in French adoptions, where it sometimes has a variant pronunciation with [j] (*camouflage, garage, gendarme, mirage, prestige, regime, rouge*);
- <z> preceding <u> in *seizure* and *azure*;
- <t> in *equation* only. AES, pp. 421-22

Palatalization. When a [consonant sound](#) is palatalized, it is pronounced back in the roof of the mouth, against the hard palate. For instance, the sound spelled <t> in *native*, [t], is not palatalized; it is an [alveolar](#), pronounced forward in the mouth. But the sound spelled <t> in *nation*, [sh], is palatalized; it is a [palatal](#), pronounced well back against the palate. There is a palatalized spelling when a letter like <t>, which normally spells a nonpalatal sound as it does in *native*, spells one that has been palatalized, as it does in *nation*.

There are several different palatalizations. For instance, palatalization leads to [\[sh\]](#) being spelled not only <t> as in *nation*, but <s> in *dimension*, <ss> in *succession*, <sc> in *luscious*, <c> in *ancient*, even <x> in *sexual*. The palatal sound [\[ch\]](#), as in *church*, is spelled <t> about a third of the time, in words like *statuesque*, *virtuosity*, and *actual*. The palatal [\[j\]](#), as in *judge*, is spelled <d> in words like *graduate* and *schedule*. And the sound [\[zh\]](#), which often comes from French where it is spelled <g> (*sabotage*, *camouflage*), has developed some palatalized spellings: It is <s> in *casual* and *leisure*, <z> in *seizure* and *azure*, even <t> in *equation*. For more on palatalization see AES, Chapter 30, “The Palatal Sibilants,” pp. 407-22, and “Palatalization” in [Spelling for Learning](#).

Participles. In English there are two participle [verb](#) forms: the **past participle**, usually spelled with the suffix *-ed*⁰¹, sometimes with *-en*⁰² or *-n*¹, and sometimes with just a change of vowel, as in *have missed*, *have broken*, *have drawn*, *have sung*; and the **present participle**, sometimes called **gerunds**, always spelled with *-ing*¹, as in *is hurrying*. Past participles carry the sense “action completed” and usually take some form of *have* or *be* as auxiliary (or “helping”) verbs. Present participles carry the sense “action still going on” and take some form of *be* – as in “The cake was baked” vs. “The cake is baking.” The word *participle* means “that which shares in the properties of two or more others,” and our past and present participles share in the properties of verb, adjective, and noun – as in “*He has broken his arm twice*” (verb), “*His broken arm was set at the ER*” (adjective), and “*Breaking his arm was really a stupid thing to do*” (noun), and in “The news is breaking” (verb), “The breaking news” (adjective), “Breaking the news was a mistake” (noun).

Particles. Particles contribute no [content](#) to a word, though they can serve various functions. Particles enter in when [elements](#) link together, or concatenate, to form words. The most common particles are the second consonants that are inserted in [twinning](#) when a word like *run* takes a suffix that starts with a vowel: run¹+n²+ing¹ = *running*, the particle <n²> serving the orthographic function of marking the preceding short vowel. Similar particles occur in the [assimilation](#) of prefix-final consonants – for instance, the <s¹> in *assimilation* (ad+s¹+simil+atē¹+ion)¹, where the particle eases pronunciation. Other particles function as linkers, like the letter <o>

common in technical words, especially from Greek: *ileostomy* ile1+o4+stom+y)3 and *ozonosphere* oz+oné)3+o4+sphere. For more on particles see [On Explication](#). A list of all 39 identified particles appears in the [Particles](#) data table of the Lexis database.

Partridge, Eric. Eric Partidge (1894-1979) was born in New Zealand and lived in Australia and England. He was a prolific lexicographer of the English language, having written several dictionaries of slang and etymology. His *Origins: A Short Etymological Dictionary of Modern English* is particularly useful since it gathers together cognate words and explores their sources, senses, and relationships.

Pastor, pasture. Although in their day to day use these words may not seem to be related in history and meaning, they actually are: Both are thought to come from an [Indo-European](#) root that meant “shelter, feed.” *Pastor* explicates to past6+or)2, the base *past6* meaning “shelter, protect” and the suffix *-or)2* meaning “one that does.” *Pasture* explicates to past2+ure), the base *past2* meaning “feed, food” and the suffix *-ure)* marking a noun of result or source. There’s a subtle but important difference in the pronunciation of the two: *pastor* is [päs^ltər], *pasture* is [päs^lchər]. For that <t> spelling of [ch] in *pasture* see [Palatalization](#).

(Per1-, (pre- These two [prefixes](#) are close enough in spelling and sometimes in pronunciation that it can be easy to transpose the <e> and the <r>. The more common prefix (*pre-* means “before, prior to, in front of” – as in *preamble, precaution, precedent, predict, preface, prefer, prefix, pregnant, prejudice, preliminary, prepare, preposition, prescription, present, preserve, president, pretend, pretense, prevalent, prevent, previously, represent*. The less common (*per1-* is an [intensive](#) and means “thoroughly, completely,” though its meaning can be hard to detect in most words: *perceive, perfect, perform, perfume, perimeter, period, perish, permanent, permission, permit, perpetual, persist, perspective, persuade*.

Personal, personnel. *Personnel* is essentially the French version of *personal*, which explicates to person+al)1; *personnel* explicates to personn+el)1. The base *person* earlier meant “mask, actor,” and *personn* is a French expansion of *person*. A French professor once told me that the <nn> in words like *personnel, questionnaire, legionnaire, and mayonnaise* indicated that the preceding vowel was nasalized, or articulated through the nose -- a distinction more important to French than English. The suffixes *-al)1* and *-el)1* both are used to form adjectives and nouns, *-el)1* again being more typically French, and receiving more [stress](#) than the *-al)1* in *personal*.

Phonetic spelling. Phonetic spelling is spelling with a phonetic alphabet in

which each speech sound is represented by a single letter and each letter represents a single speech sound. A common example of phonetic spelling is the pronunciation spellings given in dictionaries right after the main entry word. The most ambitious phonetic alphabet is the International Phonetic Alphabet (IPA) used by linguists and anthropologists. For centuries people have argued that English spelling should be more phonetic, but see [Morphemes and Morphophonemics](#) and [Richard Mulcaster](#). For a short but lethal critique of spelling reform, see Jacques Barzun's "The Năiveté of Spelling Reform" in his *A Word or Two Before You Go . . .* (Middletown: Wesleyan UP, 1986), pp. 92-98.

Plurals, regular and nonregular. See [Noun plurals](#).

Possessives. The possessive [case](#) is sometimes called the **genitive**. In nouns it is usually marked with -'s): *the foreman's salary*. Less often it is marked periphrastically with the preposition *of*: *the salary of the foreman*. As its name suggests, the possessive case usually indicates possession, but it can indicate a few other similar relationships: Description: *children's toys*; agent or doer of the act: *the principal's permission, the doctor's arrival*; the recipient of the act: *my neighbor's murderer*. Possessive pronouns do not have apostrophes: *his, hers, its, ours, yours*.

Prefixes. The most clear-cut prefixes carry a prepositional or a negative meaning. Among the prepositionals showing direction or location are (*anti*- "opposite, against," (*ad*- "to, toward," (*epi*- "on, over, close to," (*ex*- "outside, not, without," (*in*-2 "in", (*ob*- "inverse," (*pre*- "earlier, before, anterior." Among the negatives are (*a*-1 "without, not," (*in*-1, (*non*-, (*un*-. The distinction between prefixes and bound bases is a fuzzy one: Many elements are classified as prefixes in some dictionaries and as bound bases in others. See also "Definition of Prefixes" in the Introduction to the Lexis Database. [Assimilation](#). (*EDLL* at Affix, *OCEL*, *AES*, pp. 33-35)

Prepositions. Prepositions come in several sizes and shapes and serve several functions, but we will concentrate on just two types: (1) Most prepositions indicate direction or location: *up, down; to, toward; at, beside; from, away from; on, onto; off, off of; into, in; out of* – and the very general *of*. (2) Some prepositions serve as [intensifiers](#), especially *up* and *down*: *burn, burn up, burn down*. (*EDLL*, p. 312; *OCEL*, pp. 801-03)

Principle, principal. These two [homophones](#) are often confused. *Principle* is a [noun](#) that means "truth, law, standard." *Principal* as an [adjective](#) means "main, most important," and as a noun it means "chief person," as in the principal of a school. [Etymology](#) is not much help in distinguishing the two because they both descend from a Latin word meaning "leader, emperor." And word structure is not much help either,

since their two **suffixes**, *-le*² and *-al*¹, can both form adjectives and nouns. Corny as it may seem, the one help I know is the **mnemonic** phrase “The **principal** is our **pal**” – which at least helps with the youngsters’ most common use of *principal*. And it may help to know that *principle* has a derived adjective, *principled*, but *principal* does not.

Principle of Preferred Regularity. Faced with **variant spellings** – such as, for instance, *busing* and *bussing* – it makes sense to choose the variant that is most regular – that is, most agrees with the patterns and rules of English spelling. Thus the Principle of Preferred Regularity would urge *bussing* over *busing* since *bussing* is a regular instance of the **twinning rule** while *busing* contradicts that rule. Choosing the more regular spelling helps the spelling system **evolve** to greater regularity and simplicity. (This example is complicated somewhat by the fact that we also have a word *bussing* that means “kissing”!) AES, pp. 25-26.

Procedures. The word *procedure* refers to things that must happen when elements are linked together. CommonWords recognizes four procedures: **simple addition**, **twinning**, **silent final <e> deletion**, **<y>-to-<i>** and **<i>-to-<y> replacement**.

Processes. The word *process* refers to changes in pronunciation and sometimes spelling that occurred long ago and have complicated modern English spelling. CommonWords recognize three processes: **assimilation**, **palatalization**, and vowel shortening due to **suffix rules**.

Quite, quiet, quit. These three all come from a Latin word that meant “to rest,” a relationship clear enough in *quiet and quit*, less so with *quite*. The details are not settled, but it appears that the progression of senses with *quite* was from “rest” to “free” to “totally, completely.”

Recent, resent. Perhaps the first thing to notice about these two near **homographs** is that in *recent* the **stress** is on the first **syllable**, while in *resent* it is on the second. Another thing to notice is that *recent* is an **adjective**, while *resent* is a **verb**. *Recent explicates* to **(re+cent₄)**; *resent* to **(re+sent₂)**. The base *cent₄* means “fresh, new, young” and apparently appears only in *resent* and its derivatives. The base *sent₂* “feel” occurs in the verbs *assent*, *consent*, *dissent*, and more remotely in *sentence*, *sentinel*, and *sentry*. In both *recent* and *resent* the prefix (*re-* is an **intensive**, so *recent* means something like “very new,” while *resent* originally meant something like “to feel strongly,” but by the 17th century it had picked up the negative meaning that it has now.

Reduced vowels. Reduced vowels are unstressed vowels that have lost their stressed vowel sound and usually have reduced down to **schwa** – a

soft “uh” sound like that spelled <a> in *alone* [ə·lōn^l]. Some vowels reduce down to an unstressed [ɪ] like that spelled <a> in *leverage* [lɛv^l·ər·ɪj] or [lɛv^l·rɪj]. Merriam-Webster dictionaries use a dotted schwa [ə̆] to show a range of reduced vowel sounds from [ə] to [ɪ]. Reduced vowels can occur in either [open or closed](#) syllables.

Reduplication. In reduplication a word or part of a word is repeated exactly or with a slight change. Repetition of the whole word is common in words mimicking baby talk: *bye-bye*, *choo-choo*, *night-night*, *no-no*, *pee-pee*, *poo-poo*. Rhyming reduplication is a common method of [intensification](#): *superduper*, *huggermugger*, *chugalug*, *peewee*, *pellmell*, *hotchpotch*. Reduplication in which a word is repeated with a change of vowel is usually also an intensifier, as in *chitchat*, *gewgaw*, *knickknack*, *lippity-loppity*, *mishmash*, *pitapat*, *rickrack*, *riprap*, *seesaw*, *slipslop*, *ticktack*, *zigzag*. *Schm-reduplication* was adopted from Yiddish and is usually derogatory or comic: *fancy-schmancy*, *smartsy-schmartsy*, and any number of others.

Register. A register is a variety of English based on the situation or field in which it is used. A register involves the vocabulary of the field but also the way sentences are constructed and the tone in which they are used. The list of registers would include such things as scientific-technical, religious, legal, medical. But there are also registers dealing with cuisine, education, sports, etc. We could even include a youth register, based on a vocabulary of rapidly changing slang and special constructions, such as “He’s a great guy. Not.”

Runes. Runes are the letters from a group of [Germanic](#) alphabets in use in northern Europe and probably based on the [Latin alphabet](#). The runic alphabet of most interest to us is the **futhorc**, used by the [Anglo-Saxons](#), only four of whose runes are relevant to our discussion: **thorn** <þ> “thorn”; **edh** <ð>; **wynn** <ƿ> “mirth, joy”; and **yogh** <ȝ>, an Old English form of <g>, from the rune gyfu “gift”. Thorn and edh were used interchangeably to represent either [th] or [tʰ], as in our *thin* and *then*, and were replaced by <th>; wynn was replaced by <w>, and yogh by <g> and <y>. See [Norman scribes](#).

Schwa. Schwa is a reduced vowel and the most common vowel sound in English. It is the sound you hear at the beginning of the word *alone*, a soft “uh.” It is written phonetically with an upside-down <e>: [ə]. Schwa sounds like [ʊ], except that [ʊ] is always stressed, but schwa is always unstressed, so the word *above* [ə·bʊv^l] contains both schwa and [ʊ]. (The Merriam-Webster dictionaries use a schwa to symbolize both the schwa sound and stressed short <u>.) It is the most common vowel sound in English because most vowels, when they are unstressed, [reduce](#) down to schwa.

Schwa can be hard to spell because it can be spelled by any vowel letter and nearly any combination of vowel letters. In the following words the bold large letters are twenty different spellings of schwa:

abridge	sergeant	cabinet	obscure
hallelujah	bureaucrat	parliament	tortoise
mountain	sovereign	patient	miraculous
epaulet	luncheon	anxious	calculus
emergency	righteous	nasturtium	oxygen

[Old English](#) had a complex system of inflectional suffixes, but in the evolution from Old to [Middle English](#), many of these suffixes simplified to a neutral schwa sound. This vestige of old inflectional endings came to be spelled <e>. In Middle English (from about the 12th through the 15th century) final <e> was pronounced as a separate weak syllable, [ə]. Over the years the final <e> fell silent, though it tended to stay in the spelling. See [Silent final <e> functions and deletion](#) and [Vowel Lengthening and Shortening](#).

Semantics and semiotics. See [Content and meaning](#).

Shakespeare, William. William Shakespeare was the greatest poet and playwright of the [Early Modern English](#) period, a period of many great writers. He is widely said to be the greatest writer of the English language. He is certainly the most quoted single author in the [OED](#), with 33,051 citations, nearly double the number for the second place writer, Sir Walter Scott. Beyond that, according to the *OED*, 1,498 of his quotations are the first evidence for a word in English, and 7,613 are the first evidence for a particular meaning of a word. He clearly had an astonishing effect on the development of the English lexicon – and to a certain extent, its spelling. Though at times difficult, Shakespeare’s English is quite accessible to modern readers, as in these opening lines from *Macbeth*. The <ʃ> is the “long <s>” used in place of <s> in non-final positions:

Thunder and Lightning. Enter three witches.

1. When ʃhall we three meet againe?
In Thunder, Lightning, or in Raine?
2. When the Hurley-Burley’s done,
When the Battaile’s loft, and wonne.
3. That will be ere the ʃet of Sunne.

Short vowels. The short vowels are [ă] as in *pat*, [ĕ] in *pet*, [ĭ] as in *pit*, [ŏ] in *pot*, [ŭ] in *putt*. See [Vowel sounds](#).

Shortening rules. In English there is a small group of rules that account for the presence of short vowels in strings where we would normally expect long ones. See, for instance, the [Third syllable \(vowel\) rule](#); [Suffix rules](#), and [French Lemon \(or Stress Frontshift\) Rule](#). See also [Vowel lengthening and shortening](#).

Short Word Rule. English spelling restricts two-letter words – such as *be*, *by*, *do*, *is*, *to*, *we*, and *an* – to a small group of function words and very common verbs. That's one reason we have some otherwise unnecessary final double-consonants – such as in *egg*, *ebb*, *add*, and *err*. Also some silent final <e>'s appear at the ends of words to keep them longer than two letters and thus distinct from words in that select two-letter group: *be* vs. *bee*; *by* vs. *bye*; *do* vs. *doe*; *to* vs. *toe*; *we* vs. *wee*. This usage extends to otherwise two-letter words in general: *dye*, *eye*, *foe*, *pie*, *rye*, *tee*, *vee*, *woe*, *zee*. See *AES*, pp. 87-89.

Shudder, shutter. *Shudder* is a [verb](#) that [explicitates](#) to [shudd+er\)03](#); the [base](#) *shudd* means “shake, tremble,” and the [suffix](#) *-er)03* marks [frequentative](#) verbs. So to shudder is to shake or tremble repeatedly. *Shutter*, on the other hand, is a [noun](#) that explicitates to [shut+t2+er\)01](#); the base *shut* means “shut,” and the suffix *-er)01* means “one that does,” so a shutter is something that shuts or closes. In spite of all these differences between them in meaning, function and form, the two words are easy to confuse because they are also near [homophones](#): In *shutter* the <tt> spells [t], but when the sound [t] comes between two vowels, especially if the first vowel is stressed, it can sound very much like [d]. Linguists call it a flapped [t]. The same problem exists with pairs like *ladder*, *latter*; *pedal*, *petal* and *hardy*, *hearty* – and for [medal](#), [metal](#), [mettle](#), [meddle](#).

Silent final <e> functions and deletion. Silent final <e> can serve five different functions:

- **marking long vowels:** A silent final <e> regularly will mark a stressed vowel in front of it if there is only one consonant letter between them:

Short Vowel Sounds		Long Vowel Sounds	
[ă]	<i>cap</i>	[ā]	<i>cape</i>
[ĕ]	<i>met</i>	[ē]	<i>mete</i>
[ĭ]	<i>gyp, fin</i>	[ī]	<i>type, fine</i>
[ŏ]	<i>not</i>	[ō]	<i>note</i>
[ŭ]	<i>dud</i>	[ū]	<i>dude</i>

There are three holdouts to this rule: In words that end in <aste>, <ange>, and <le> the silent final <e> will usually mark the preceding vowel as long

even though there are two consonants between the vowel and the <e>: *paste* vs. *past*; *range* vs. *rang*; *rifle* vs. *riffle*.

- **marking soft <c> and <g>**: Whether or not it affects the preceding vowel, sometimes silent final <e> affects the preceding consonant – namely, the sounds spelled by <c> and <g>: *pac* vs. *pace*, *lac* vs. *lace*, *mac* vs. *mace* and *dog* vs. *doge*, *hug* vs. *huge*, *sag* vs. *sage*, *stag* vs. *stage*, *wag* vs. *wage*. See [Soft and hard <c> and <g>](#).

- **marking voiced <th>**: A silent final <e> will mark a preceding <th> as voiced, pronounced [th]: *bath* with voiceless [tʰ] vs. *bathe* with voiced [th]. Also *cloth* vs. *clothe*, *teeth* vs. *teethe*, *loath* vs. *loathe*, *breath* vs. *breathe*. See [Voiced vs. voicless \(unvoiced\) sounds](#).

- **insulating word-final <v> and <u>**: Long ago <v> and <u> were different forms of the same letter. See [Latin alphabet](#). For reasons that go back hundreds of years, we use silent final <e> to insulate an otherwise word-final <v>: *curve*, *give*, *groove*, *have*, *shelve*, and *thieve*. And except for a few recent foreign borrowings – like *gnu*, *bayou*, and *tabu* – we also use it to insulate an otherwise word-final <u>, as in *plaque*, *tongue*, *league*, *statuesque*.

- **insulating base-final <s> and <z>**. Silent final <e> is sometimes used to keep a word from ending with a base-final single <s> or <z>: For instance, in *tens* ten+s³ and *laps* lap+s³ the <s> is the plural suffix; in *tense* and *lapse* the <s> is part of the base, and the silent final <e> keeps them from looking like the plural nouns *tens* and *laps*. If the <s> has a short vowel right in front of it, another <s> will be added rather than a silent final <e>: *mass*, *mess*, *miss*, *moss*, *muss*. The same pattern holds for the letter <z>. The letter <z> is fairly rare in English, and the sound [z] is most often spelled <s>. As with <s>, we tend to avoid ending a word with a single <z>. If there is a short vowel preceding the <z>, we add a second <z>, as in *fuzz*, *fizz*, and *jazz*, but notice the recent adoption *fez*. If there is a consonant or a long vowel preceding the <z>, we add a silent final <e>, as in *bronze*, *wheeze*, and *booze*.

- **enforcing the [Short Word Rule](#)**.

Some silent final <e>'s are [fossils](#) with no modern function.

Deleting silent final <e> is fairly straightforward: We delete a silent final <e> that is marking a soft <c> or <g> whenever we add a suffix that starts with <e>, <i>, or <y>: lacé+ed¹, lacé+ing¹, lacé+y¹ and except for some local cases involving stems ending <ee>, <ie> and <oe>, we delete any other silent final <e> when we add a suffix that starts with any vowel letter.

Those local cases with <ee>, <ie>, and <oe> are these:

- With [stems](#) that end <ee>, we delete the final <e> only when adding suffixes that start with <e>: tee+ed but tee+ing.

- With stems that end <ie>, we delete the final <e> when adding a suffix that starts with any vowel except <i>, in which case we change the

<i> to <y> and then delete the <e>: diē+ed = *died*, but diē+y+ing = *dying*.

• With stems that end <oe>, we delete the final <e> when adding suffixes that start with any vowel except <i>: toē+ed = *toed* but toe+ing = *toeing*. AES, pp. 145-60.

Silent letters. In one sense all letters are silent since they are things you see not hear. But in another sense, a letter is silent if it is there in the written word but you can hear no trace of it when the word is spoken. In that sense the in *climb* can be said to be silent, as can the <p> in *cupboard* or the [b] in *subpoena*. The sounds [m, b, p] are all bilabial [consonant sounds](#), and when two bilabials come together there is a tendency for one of them to get lost in pronunciation. Consider these words with word-final <mb> spelling [m]: *bomb, climb, comb, dumb, lamb, succumb, tomb, womb*. Rather than calling all those final 's silent letters that mark some ghostly unit of silence, in this analysis they are treated as [simplifications](#) – that is, cases where earlier pronunciations simplified but the spelling has remained the same. Thus, in these words we say that [m] is spelled <mb>, in *cupboard* [b] is spelled <pb>, and in *subpoena* [p] is spelled <bp>. One holdout: the letter <h> does occur as a true silent letter in words like *honest, honor, hour* and after <x>, as in *exhaust, exhibit, exhort*. See [<h> and \[h\]](#)

This analysis does, however, recognize silent vowel letters – most noticeably, [silent final <e>](#) as in *time* where it serves the diacritic function of marking a long vowel, or *clothe* where it marks a voiced <th>, *ounce* where it marks a soft <c>, or *bronze, clause, league, active*, where it insulates a letter that normally doesn't occur at the end of word-final bases. On the other hand, some silent <e>'s serve no diacritic function at all, as in *fixed* [fikst] and *ashamed* [ə·shā^lmd]. See [<gh>](#). For more on <gh> in words like *weigh* and *neighbor* see “A Note on Silent Letters” from [Spelling for Learning](#).

Simple Addition. The Rule of Simple Addition is the single most important and general rule in spelling. It states that unless you know of some reason to make a change – such as twinning or <e> deletion – elements simply add together, or concatenate, with no changes. Far and away most of the times elements join through simple addition – as in *unearthly* (un¹+earth+ly)³ and *repainted* (re+paint+ed)¹.

Simplifications. Simplifications retain the original longer spellings of one-time [blends](#) that have simplified over time to single consonant sounds:

<cht> = [t] as in *yacht*

<ft> = [f] as in *often*

<ght> = [t] as in *light*

<gn> = [n] as in *sign*

<kn> = [n] as in *knight*

<ld> = [d] as in *could*

<lf> = [f] as in *half*

<lk> = [k] as in *talk*

<lm> = [m] as in *calm*
<ln> = [n] as in *Lincoln*
<mb> = [m] as in *bomb*
<mn> = [m] as in *column*
<pb> = [b] as in *cupboard*
<ph> = [p] as in *shepherd*
<ps> = [s] as in *psychology*

<qu> = [k] as in *conquer*
<sc> = [s] as in *muscle*
<sl> = [l] as in *island*
<st> = [s] as in *listen*
<sth> = [s] as in *isthmus*
<sw> = [s] as in *sword*
<tg> = [g] as in *mortgage*
<wr> = [r] as in *write*

Some analyses would treat the extra letters in simplifications as [silent letters](#) or [fossils](#).

Simplifications with lost [t], [l], and [p].

Lost [t]: Usually <ft> spells [ft] as in *after, craft, fifteen, fifty, gift, left, lofty, oft, swift*. But it spells [f] with a lost [t] in *often* – though there is a less common [variant pronunciation](#) with [ft]. These variant pronunciations have been around since the 16th century, though [ft] seems to be gaining ground, probably due to [spelling pronunciation](#). The [t] is also lost in other simplifications, especially before the [syllabic consonants](#) [n] and [l]: *fasten, listen, soften; castle, epistle, thistle, wrestle*, and in *chestnut, Christmas, mortgage*.

Lost [l]: Usually <ld> spells [ld]: *bewilder, children, field, held, old, soldier, world*. But in *could, should, would* and their derivatives *couldn't, shouldn't, wouldn't*, <ld> spells [d] with a lost [l]. See [Analogy](#). There is also a lost [l] in *solder*. Usually <lf> spells [lf]: *fulfill, golf, herself, olfactory, shelf, sulfur, twelfth, werewolf*. But the [l] is lost in *behalf, calf, half*. Usually <lk> spells [lk]: *alkaline, bulk, folk, polka, silken*, but the [l] is lost in *chalk, Norfolk, sidewalk, stalk, talk, walk*. The only known case where [l] is lost in an <ln> spelling is *Lincoln*.

Lost [p]: Usually <ps> spells [ps]: *apocalypse, collapse, eclipse, epilepsy, keeps, perhaps, upset*. But in several words, all from Greek spelled with the Greek letter psi, <ψ>, originally pronounced [ps], the [p] is lost in English: *parapsychology, psalm, psalter, pseudoscience, psyche, psychiatry, psychic, psychology, psychotic, psychosomatic, psychotherapy*. The [p] is also lost in *receipt* due to a 14th century [Latinization](#) of the [Middle English](#) *receite*, from the Latin *recepta*. And the [p] is lost in a number of [pt] simplifications of Greek adaptations, mostly from the scientific-technical [register](#): *pterodactyl, ptisan, ptomaine, ptosis, ptyalin*. A [p] is also lost in the respelling of the Gaelic *tarmachan* to *ptarmigan*, apparently due to the mistaken notion that it was a variation of the Greek base *pter* “wing” as in *pterodactyl* and *helicopter*. There is a lost [p] in the simplification <pb> in *cupboard, clapboard, raspberry, Campbell*. This

loss is due to the fact that when the the two [bilabial stops](#) [p] and [b] [concatenate](#), the first tends to be lost. Compare this with loss of [b] in *subpoena*. (In the concatenation <mbp> in *bombproof* and *thumbprint* the lost [b] is due to <mb> simplification in *bomb* and *thumb*.)

Soft and hard <c> and <g>. The letter <c> spells the sound [s] when it is followed by the letters <e, i, y>: *chance, chancing, chancy*. A <c> that spells [s] is called **soft <c>**. The letter <c> spells the sound [k] before any other letter and at the end of a word: *career, discuss, nucleus, critic, arc*. A <c> that spells [k] is called **hard <c>**. The letter <g> usually spells the sound [j] when it is followed by the letters <e, i, y>: *range, ranging, rangy*, and is called **soft <g>**. The letter <g> spells the sound [g] before any other letter and at the end of a word. But it also spells [g] before <e, i, y> in some native words: *get, girl, bogy* – and in one pronunciation of the Greek base *gyn* “woman,” as in *gynecology*. When <g> spells [g], it is called **hard <g>**.

Spelling Bees. Spelling bees are named after the honey bee in reference to the bee’s social nature. Originally this word *bee* was used to refer to work parties, especially among farm families, where neighbors joined together in some project – as in quilting-bees, (barn-)raising-bees, husking-bees. Later it came to mean a gathering for a competition among spellers. For more information about becoming involved with spelling bees, you can go to www.spellingbee.com.

Spelling Demons. There are many different lists of spelling demons, but very little agreement among them. In his *Spelling: An Element in Written Expression* R. L. Hillerich reports that in a 398-word composite list from four different lists of spelling demons, more than 70% appeared in only one of the four lists (Merrill, 1976, p. 64). An even larger composite demons list appears in the **Other Problem Spellings** field of the [CommonWords](#) data table, where 639 words that appear in at least one list of demons are marked with an exclamation point. See also [Misspellings](#).

Spelling pronunciation. Spelling pronunciation is a change in pronunciation to bring it more in line with the spelling. It often results in the introduction of consonant sounds that were missing in the traditional pronunciation – for example, *often* with [t], *clothes* with [th], *salmon* and *palm* with [l], *arctic* with two [k]’s, *ski* with [sk] rather than the original [sh]. Sometimes it results in the re-expansion of pronunciations that had traditionally been [simplified](#): *waistcoat* as [wāst^lkōt_l] rather than the older [wēs^lkīt], *cupboard* with a [p], *forehead* as [fōr^lhēd_l] rather than the older [fōr^lhīd_l].

Standard Written English. After the reestablishment of English as the language of the land in the 14th and 15th centuries, a written standard

developed in the [Early Modern English](#) period. The standard was based on the London dialect and was helped along by the invention of the printing press and the work of the Chancery office in London, which produced government documents that were circulated nationwide. Standard Written English went far towards standardizing English spelling, but since the spoken language changes faster than the written, we are left with a spelling system that at times does a more efficient job of spelling Early Modern English than the English of today.

Stems. A stem is any [element](#) or string of elements to which we are going to add or from which we are going to subtract any elements. Every stem must contain at least one [base](#), but it can have any number of [prefixes](#) or [suffixes](#), including none at all. Stems, like bases, can be either [bound](#) or free. So all of the following combinations can be stems – in this case, free stems:

Combinations	Example Stems
Free Base	<i>paint</i>
Prefix + Free Base	<i>repaint</i>
Free Base + Suffix	<i>painted</i>
Prefix + Free Base + Suffix	<i>repainted</i>

And we can go on adding elements, especially prefixes and suffixes, as in free stems like *unrepainted*.

Stems can also contain bound bases, as in the following examples, with the bound base *spect*:

Combinations	Example Stems
Prefix + Bound Base	<i>respect</i>
Prefix + Bound Base + Suffix	<i>respectful</i>
Prefix + Prefix + Bound Base + Suffix	<i>disrespectful</i>
Prefix + Prefix + Bound Base + Suffix + Suffix	<i>disrespectfully</i>

Stems can also be bound, as in stems like *spect*, *spectful* and *spectfully*, none of which is a word. Sometimes even a stem with a free base can be bound. For instance, In the word *unblinkingly*, *unblinking* is a free stem because it's also a word, but *unblink* is bound, since we do not have the word *unblink*.

Stress. Stress (sometimes called *accent*) refers to what is usually called the loudness of a certain vowel sound – though it is often described as intensity or prominence or force. Some linguists distinguish four degrees of

stress: primary, secondary, tertiary, and weak, but usually only three degrees are distinguished – primary, secondary, and weak – as in the pronunciation respellings given in most dictionaries. In the analysis of syllable structure in CommonWords, only two degrees are noted, stressed and unstressed. Other areas of CommonWords recognize three degrees – primary marked with a following high vertical, secondary with a following low vertical, and weak with no mark: [flā'mɪŋ], [bɪg'hɛd'ɪd], [ə·bʊv'].

Strings. In CommonWords a string is a sequence of vowel and consonant letters, the first vowel of which is usually spelling a stressed vowel sound. Four different strings are recognized:

VCV vs. VCCV strings. A VCV string consists of a single vowel letter spelling a stressed [long vowel sound](#) followed by a single consonant letter, which is in turn followed by a vowel letter – often a [silent final <e>](#): *rated, ceded, writing, hope, dune*. A VCCV string consists of a single vowel letter spelling a stressed [short vowel sound](#) followed by two consonant letters – often a [doublet](#) – as in *gander, lettuce, sadden, pumpkin*. Thus we have contrasts like *later vs. latter, biter vs. bitter, coma vs. comma, dining vs. dinning, fiber vs. fibber*. See [VCV vs VCCV Contrasts](#).

VCCle vs. VCle strings. A VCCle string consists of a single vowel letter spelling a stressed short vowel sound followed by two consonant letters – often a doublet – followed in turn by a word-final <le>. Some examples: *battle, gamble, pebble, gentle, thimble, topple, supple*. A VCle string consists of a single vowel letter spelling a stressed long vowel sound followed by a single consonant letter followed <le> – as in *ladle, noble, ogle, quadruple*. Thus we have the following contrasts: *riffle vs. rifle; ruble vs. rubble*.

CVC# strings. A CVC# string consists of a word-final consonant letter preceded by a single vowel letter, with the vowel letter spelling a short vowel – as in *homonym, lunatic, thermostat*.

V.V strings. A V.V string consists of two vowel letters spelling two vowel sounds separated by a [syllable](#) boundary. The first vowel in a V.V string will be long even if it is unstressed, as in *create* [krē·āt^l] or *anemia* [ə·nē^lmē·ə], as well as in words like *lion* and *giant* where the first vowel is stressed. Notice that the first vowel in a V.V string is by definition in an [open syllable](#).

Suffix -ic)1 Rule. See [Suffix Rules](#).

Suffix -ity) Rule. See [Suffix Rules](#).

Suffixes. There are two kinds of suffixes: **inflectional** and **derivational**. In dictionaries inflected forms are usually listed towards the beginning of an entry, derived forms towards the end.

Inflectional suffixes. Inflectional suffixes add meanings to the stem that help answer questions like "One or more than one?" "Whose?" "How much?" and "When?" For instance, the inflectional suffix *-ed*)1 answers the question "When?", and the suffix *-s*)3 answers the question "One or more than one?" In the sentence "George painted three of the chairs," *-ed*)1 adds the meaning "in the past" to the [verb](#) *paint*; *-s*)3 adds the meaning "more than one" to the singular [noun](#) *chair*. Thus, *-ed*)1 is a past tense verb inflectional suffix; *-s*)3 is a noun plural inflectional suffix.

Among regular verbs there are two common 3rd person singular present tense suffixes: *-s*)2 and *-es*)1. We add *-es*)1 to verbs that end with one of four sounds: [s], [z], [ch], or [sh], and after the <y> to <i> replacement – as in *kisses*, *buzzes*, *watches*, *wishes*, *tries*. *Fixes* takes *-es*)1 because the <x> spells the combination sound [ks]. These are the inflectional suffixes for regular verbs:

Suffix	Inflectional Sense	Example
<i>-s</i>)2, <i>-es</i>)1	3 rd person singular present tense "action undertaken"	"She calls."
<i>-ed</i>)1	Past tense "in the past"	"She called yesterday."
<i>-ed</i>)1	Past participle "action completed"	"She has called often."
<i>-ing</i>)1	Present participle "action continuing"	"She is calling now."

Notice that what we are calling present tense is actually a kind of recurrent or routine tense: "She calls" could mean that she may be calling right now in the present, has called in the past, and can be expected to call in the future.

Nonregular, so-called [strong verbs](#) from [Germanic](#) show past tense and past participle inflection through changes in their vowel. See [Ablaut](#). But they show the 3rd person present singular with *-s*)2 and the present participle with *-ing*)1: *sing*, *sang*, *sung*, *sings*, *singing*; *swim*, *swam*, *swum*, *swims*, *swimming*.

There are also two common noun plural suffixes: *-s*)3 and *-es*)2. See [Noun plurals](#).

Derivational Suffixes. Inflectional suffixes add layers of meaning to words. But derivational suffixes usually change the entire function of the words to which they are affixed – that is, change their part of speech,

adding information like "This is an adjective" or "This is an adverb." A derivational suffix is basically any suffix that is not an inflection – and there are a lot of them. Though the situation is more complicated, the following illustrates some of the uses of several derivational suffixes:

Suffix	Change	Examples
-able)	<u>verbs</u> into <u>adjectives</u>	<i>agree, agreeable</i>
-ance)	verbs into <u>nouns</u>	<i>guide, guidance</i>
-ancy)	adjectives or verbs into nouns	<i>buoy, buoyancy</i>
-al)1	nouns into adjectives	<i>classic, classical</i>
-al)2	verbs into nouns	<i>propose, proposal</i>
-ful)	nouns or verbs into adjectives	<i>delight, delightful</i>
-ion)1	verbs into nouns	<i>act, action</i>
-ity)	adjectives into nouns	<i>extreme, extremity</i>
-ize)	nouns into verbs	<i>critic, criticize</i>
-less)	nouns into negative adjectives	<i>hope, hopeless</i>
-ly)1	adjectives into <u>adverbs</u>	<i>close, closely</i>
-ly)3	nouns into adjectives	<i>friend, friendly</i>
-ment)	verbs into nouns	<i>achieve, achievement</i>
-ness)	adjectives into nouns	<i>kind, kindness</i>
-th)1	<u>cardinal numbers into ordinals</u>	<i>eleven, eleventh</i>
-th)2	verbs or adjectives into nouns	<i>grow, growth</i>

Some derivational suffixes do not change an adjective or noun's part of speech but rather turn it into a related noun:

Suffix	Sense	Examples
-ess)1	"Feminine"	<i>god, goddess</i>
-hood)	"Condition, instance of a condition"	<i>child, childhood</i>
-ism)	"Action, characteristic quality"	<i>terror, terrorism</i>
-ist)1	"One connected with a thing"	<i>violin, violinist</i>
-ster)1	"One that is associated with"	<i>gang, gangster</i>

Suffix Rules. The two main suffix rules concern the suffixes *-ity*) and *-ic*)1. The **suffix *-ity* rule** states that the suffix *-ity*) is regularly preceded by a vowel that is stressed and short, even if it heads a VCV string. The *-ity*) rule motivates shortening of the stem vowel, as in *sane* with [ā] vs. *sanity* with [ǎ], and it also motivates a shift of stress onto the vowel immediately preceding it, as in *civil* vs. *civility*, [sī^l-vəl] vs. [sī-vī^l-ī-tē]. Other examples: *active, activity; mental, mentality; cave, cavity; obscene, obscenity; electric, electricity; profane, profanity; extreme, extremity; public, publicity*.

The **suffix *-ic*)1 rule** states that *-ic*)1 is regularly preceded by a vowel that is stressed and short, even if the vowel is unstressed or long in the stem: *athlete, athletic; state, static; atom, atomic; parasite, parasitic; demon, demonic; patriot, patriotic*.

Suppose, supposed; use, used. *Suppose* is a [verb](#); *supposed* is the [past participle](#) of that verb used as an [adjective](#) meaning “intended as true, required.” The major spelling problem is when the verb *suppose* is used in phrases that call for the adjective *supposed*, as in the mistaken **“He was suppose to go.”* A similar problem exists with the verb *use* and its past participle *used*, as in the mistaken **He use to go on Saturdays* instead of *He used to go on Saturdays*.

Syllabic consonants. A [syllable](#) always contains one and only one peak of sound. In the huge majority of cases those peaks are vowel sounds spelled by vowel letters, but occasionally the [nasals](#) and [liquids](#) [m], [n], [l], and [r] can provide the peak without a vowel letter, usually at the end of free [stems](#). These consonant sounds are called **syllabic consonants**. For instance, the word *chasm* has two syllables but only one vowel letter. When the letter <m> follows an <s> and comes at the end of a word, it spells a syllabic consonant that functions as if it were a vowel. Other instances are in *algorithm*, *organism* – and all the other words with the suffix *-ism*). Other letters that can spell syllabic consonants are <n>, <l>, and <r>. Notice that in *button*, *brittle*, and *butter*, you do not hear any vowel sounds in the final syllables, just the consonant sounds [n], [l], and [r].

Syllables. Syllables are units of the spoken language. That is one of the ways they differ from [elements](#), which are units of the written language. A syllable is a unit of a spoken word that contains one and only one vowel sound – or in a few cases one and only one [syllabic consonant](#). Syllables can be [stressed](#) or unstressed, and open or closed. Open syllables end with a [vowel sound](#); closed syllables end with a [consonant sound](#). Closed syllables usually contain short vowel sounds. Open syllables usually contain a long or a [reduced](#) vowel sound – though closed syllables at the end of words can also contain long or reduced vowels, especially in words that end with [silent final <e>](#).

In dictionaries the syllabication of the entry word is given in the pronunciation respelling, usually right after the word itself. But dictionaries also divide the entry word itself into units that fall somewhere between regular syllables and elements. They are provided to show where the word can be divided and hyphenated at line’s end. These divisions very often do not agree with the actual syllabication of the word or its explication into elements. See “A Note on Syllables” from [Spelling for Learning](#).

Synonyms, antonyms, pseudonyms, heteronyms, acronyms.

- **Synonyms** are two or more words that have the same or nearly the same [content](#) – such as *lawyer* and *attorney*, or *throng* and *crowd*. Though their contents are close, most synonyms actually produce slightly different shades of meaning, so they must be used with care.

- **Antonyms** are words that have opposite or nearly opposite contents –

like *hot* and *cold*, or *happy* and *sad*.

- **Pseudonyms** are fictitious names. A pseudonym used by a writer is called a *pen name* or *nom de plume*.

- **Heteronyms** have the same spellings but different contents and pronunciations – such as *bass*¹ “a low singing voice” pronounced [bās] and *bass*² “a fish” pronounced [bäs]; or *tinged*¹ “made a tinging noise” pronounced [tĩngd] and *tinged*² “slightly colored” pronounced [tĩnjd].

Heteronym is another name for *homograph*. See also [Homonyms](#).

- **Acronyms** are formed from the initials of a group of words. Some acronyms are pronounced like regular words – for instance, *NATO* and *UNICEF*, but others are spelled out – *UN* and *ROTC*, though on college campuses *ROTC* is sometimes pronounced [rŏt'sē].

Third Syllable (or Third Vowel) Rule. The Third Vowel Rule says that the third (or fourth) vowel sound from the end of the word will be short **if** it is stressed. Most instances of the Third Vowel Rule are words adapted from Latin, and they reflect the way Latin pronunciation was taught in British schools during late Middle Ages and Renaissance. A few instances, like *holiday* from “holy day,” are native English words, which reflect the fact that in Old English there was a strong tendency to shorten long vowel sounds in syllables three or more places from the end of a word. Another native English example is *midwifery* with [wĭf] from *midwife* with [wĭf].

In the following pairs, the first, the stem or a closely related shorter word, has a long vowel, while the second is a longer derived or related word that illustrates the Third Vowel Rule. In these words we are treating *-ion* as having two syllables, as it did back when the Third Vowel Rule affected it:

Shorter Words	Longer Words	Shorter Words	Longer Words
<i>compete</i>	<i>competitor</i>	<i>legal</i>	<i>legacy</i>
<i>crime</i>	<i>criminal</i>	<i>nation</i>	<i>national</i>
<i>decide</i>	<i>decision</i>	<i>nature</i>	<i>natural</i>
<i>sane</i>	<i>sanity</i>	<i>navy</i>	<i>navigate</i>
<i>explain</i>	<i>explanatory</i>	<i>pose</i>	<i>positive</i>

The Third Vowel Rule holds in hundreds and hundreds of words, perhaps thousands, but there are two familiar local rules that can preempt it:

- The long vowels [\[ū\]](#) and [\[yū\]](#), as in *cuticle*, *enthusiast*, *fumigate*, *jubilee*, *luminous*, *mutilate*, *punitive*, and *unicorn*; and

- when the head vowel of a [V.V string](#) falls three (or four) places back in a word, it will resist shortening by the Third Vowel Rule: *dialect*, *iodine*, *piety*,

psychiatrist, reliable, violate, hyacinth, kaolin, peony.

Through, thorough. Both *through* and *thorough* come from the [Old English](#) word *þurh* “through.” By late in the Old English period *þurh* had developed the two-syllable expansion *þuruh* with the extended meaning “through, end to end,” which became our adjective *thorough* “complete.” This same expansion from one to two syllables occurred in several words – including our words *borough, furrow, borrow, sorrow*. For <þ> see [Runes](#).

Triplets. In English spelling there is a strong constraint against triplets – that is, strings of three identical letters. Thus, *shrill+ly*¹ does not equal *shrilly and *wee+est*) does not equal *weeest. I am not aware of any holdouts to this constraint. We can say that *shrilly* explicates to either *shrill+y*⁴ or to *shrill+ly*¹, the suffix *-y*⁴ being a contraction of *-ly*¹ used after [l], as in *notably, visibly*, etc. By the same token, *weest* explicates either to *wee+est*¹ or to *wee+st*⁵, *-st*⁵ being a contraction of *-est*¹ as in *first, most*, etc.

There is a weak constraint against doublets within larger clusters. Thus, *offal*, which etymologically is *off* + *fall* has a deleted <f> (and <l>) *off+fall*. This constraint also explains the deletions in *ascend*, which equals *ad+\$+scend* to avoid **asscend*, with the <ss> doublet in the larger <ssc> cluster. Similarly we have *aspect* (*ad+\$+spect*, *distant* (*di\$+stant*, and *distinct* (*di\$+stinct* and several others. However, there are several holdouts to this weak constraint – for instance, in some words that end with the suffixes *-ful*) or *-ness*): *blissful, illness, successful, wellness*, and several others.

Twinning. You twin the final consonant of a [stem](#) if you are adding a suffix that starts with a vowel, and if the stem ends in a single vowel sound and letter followed by a single consonant sound and letter, and if there is at least secondary stress on the final vowel sound of the stem both before and after you add the suffix. For example:

begin + *er*)¹ = (*be+gin*³+*n+er*) = *beginner*
commit + *ing*) = (*com+mit*¹+*t+ing*) = *committing*

But *dead* + *er*)⁰² = *deader* with no twinning because there are two vowel letters preceding the final consonant. *Rich* + *er*)⁰² = *richer* with no twinning because the stem word ends with two consonant letters. And *limit* + *ed*) = *limited*, *symbol+ic*)¹ = *symbolic*, and *infer+ence*) = *inference* – all with no twinning because there is not stress on the final syllable of the stem word both before and after the suffix is added. For more details see “Twinning” from [Spelling for Learning](#).

Use, used. See [Suppose, supposed](#).

Variant Spellings. In his *Variant Spellings in Modern American Dictionaries* (1973) Donald W. Emery lists about 2,000 words that have variant spellings. Three points to remember about variant spellings are (i) all are equally correct, (ii) not all are equally common, and (iii) not all are equally regular. In general, when correcting tests and papers, I recommend a generous approach: If a spelling is listed as a variant in at least one dictionary, it's correct – though it's probably a good idea to point out to students that uncommon variants will often be treated as incorrect by readers. Further tempering that generosity, if one of the variants is more regular than the other or others, I recommend preferring the more regular one. By *regular* here I mean simply that the spelling better agrees with the patterns and rules of English spelling. By preferring regularity we are gently encouraging the evolution of our spelling system to more regularity and ruliness. See [Principle of Preferred Regularity](#).

VCV vs. VCCV Contrasts. VCV vs. VCCV contrasts occur in several common pairs of words and can give spellers problems:

biter, bitter	liter, litter
coma, comma	muter, mutter
diner, dinner	planing, planning
filing, filling	raged, ragged
fury, furry	super, supper
later, latter	

VCV vs. VCCV contrasts also occur in less common pairs of words:

<i>coper</i> “one who copes”, <i>copper</i>	<i>puling</i> “whining”, <i>pulling</i>
<i>fluter</i> “one who plays the flute”, <i>flutter</i>	<i>shining</i> , <i>shinning</i> “shinnying”
<i>mater</i> “Latinized ‘mother’”, <i>matter</i>	<i>wining</i> as in “ <i>wining and dining</i> ”, <i>winning</i>

Similar single-consonant vs. double-consonant contrasts occur, but due to shifts in stress they are not regular VCV vs VCCV contrasts:

<i>below</i> , <i>bellow</i>	<i>discus</i> , <i>discuss</i>
<i>cares</i> , <i>caress</i>	<i>posses</i> (pl. of <i>posse</i>), <i>possess</i>
<i>desert</i> , <i>dessert</i>	<i>princes</i> , <i>princess</i>

There are a very few single-consonant vs. double-consonant contrasts with no change in the pronunciation of the vowels: *canon*, *cannon*; *caries* “tooth decay”, *carries*; and *Mary*, *marry*.

Velar sounds. Velars are [consonant sounds](#) articulated with the back of the tongue at or near the soft palate, or velum, at the rear of the mouth.

Verbs: regular and irregular. Almost all verbs change their form to indicate action in the past. Most verbs are regular, which means that they form their past tense and past participle by adding the suffix *-ed*)1: *call* (pres.), *called* (past), *called* (past part.); *buzz*, *buzzed*, *buzzed*; *look*, *looked*, *looked*; *tow*, *towed*, *towed*; *pass*, *passed*, *passed*. But there are more than 250 irregular verbs – that is, verbs that do not form their past tense and/or their past participles with *-ed*)1. The following are some of the different types of irregular verbs: A few, like *cut*, *cost*, *hit*, *hurt*, *shut*, do not make any changes in their past tense or past participle. Several, the so-called **strong verbs**, form their past tense by changing the vowel sound and spelling and their past participle by sometimes changing the vowel and always adding the suffix *-en*)02 or *-n*)1: *freeze*, *froze*, *frozen*; *speak*, *spoke*, *spoken*; *draw*, *drew*, *drawn*; *fall*, *fell*, *fallen*, *eat*, *ate*, *eaten*; *rise*, *rose*, *risen*. See [Ablaut](#). Others mark the past tense and past participle in the same way, but with pronounced changes in spelling and pronunciation from the infinitive or basic form: *bring*, *brought*, *brought*; *buy*, *bought*, *bought*; *catch*, *caught*, *caught*; *teach*, *taught*, *taught*; *think*, *thought*, *thought*.

Regular and irregular verbs all form the 3rd person singular present tense and the present participle with *-s*)2 or *-es*)1 and *-ing*)1. See [Suffixes](#).

Vikings. The Vikings were seafarers from Norway, Sweden, and Denmark who from the late 8th century to the [Norman Conquest](#) raided northern Europe and England. Those who settled in northern France in the 10th century became the Normans. There were earlier landings and raids, but the Vikings' first major raid on England was in 793, when they sacked and destroyed the Christian abbey on the island of Lindisfarne off England's northeast coast. By the mid 9th century they had overrun and begun settling eastern and northern England. By the late 9th century and after repeated battles [Alfred the Great](#), king of Wessex, defeated the Vikings and brought peace to Wessex in southern England and to Mercia in the central south and west. In the late 10th century the Viking attacks began again and continued through the early 11th century, until the Norse had settled in and held control of much of eastern England. The interaction between Old English and [Norse and Anglo-Norse](#) had significant influence on the evolution of English.

Voiced vs. voiceless (unvoiced) sounds. Sixteen consonants come in pairs in which the two sounds are identical except that one is **voiceless** and the other is **voiced**. A voiced sound is pronounced with the vocal cords vibrating, a voiceless sound is pronounced with no vibration:

Voiceless	Voiced
[p] as in <i>pop</i>	[b] as in <i>bob</i>
[t] as in <i>tat</i>	[d] as in <i>dad</i>
[k] as in <i>kick</i>	[g] as in <i>gig</i>
[f] as in <i>fluff</i>	[v] as in <i>verve</i>
[s] as in <i>scarce</i>	[z] as in <i>czars</i>
[th] as in <i>thin</i>	[<u>th</u>] as in <i>then</i>
[sh] as in <i>shush</i>	[zh] as in <i>azure</i>
[ch] as in <i>church</i>	[j] as in <i>judge</i>

Nasals, liquids, semivowels, and vowels are all voiced.

Sometimes, even if you have trouble hearing the difference between, say, voiceless [th] and voiced [th], as in *bath* and *bathe*, you can feel the difference: Put your fingers lightly on your throat just up under your chin and say *bath*. You should feel nothing as you pronounce the [th]. Then say *bathe*. You should feel some vibration in your throat as you pronounce the voiced [th]. The vibrations are caused by your vocal cords.

Vowel lengthening and shortening. In earlier English the distinction between long and short [vowels](#) was quite different from what it is today. It was a distinction in sound quantity, or duration: Long <a> was the same vowel sound as short <a>, just held longer. Thus, in earlier English short <a> was an “ah”-like sound; long <a> was more like “aah.” Today *long* and *short* refer not so much to quantity, or duration, but to the quality of the vowel sound, so today’s short <a>, [ă] as in *fat*, is different in sound quality from long <a>, [ā] as in *fate*, with no consideration of quantity. Today *long* vs. *short* is not a phonetic but an orthographic distinction.

In [Old English long vowels](#) could occur in either open or closed syllables, as could short vowels. The evolution of Old English into [Middle English](#) was marked by the systematic lengthening of short vowels in open syllables while long vowels in closed syllables were systematically shortened. The following are words with long vowels that were short in Old English open syllables: *bacon, eat, hope, make, meat, sake, smoke, steal*. Words with short vowels that were long in Old English closed syllables: *ask, kept, hid, soft*.

The lengthening of Old English vowels in open syllables led to the convention of using [silent final <e>](#) as a long vowel marker. This final <e> was all that was left of a number of Old English [inflectional suffixes](#) and was originally pronounced [ə], usually putting the preceding vowel in an open syllable, thus tending to lengthen it. After the final <e> fell silent in late

Middle English, it was still there in the spelling to complete the [VCV](#) string.

There were some other more localized and less systematic lengthenings: Some short Old English vowels lengthened before <nd>, <ld>, and <mb>: *bind*, *blind*, *find*, *grind*, *hind*, *kind*, *mind*, *rind*, *wind* (vb.); *child*, *wild*, *mild*; *climb*, *tomb*. For more on vowel lengthening and shortening and the use of silent final <e>, see AES, pp. 97-99, “A Short History of the VCC/VCV Contrast” and “The Development of Silent Final e.”

Vowel letters. See [Consonant and vowel letters](#).

Vowel sounds. English vowels are usually displayed in a chart whose rows indicate the tongue’s position relative to the roof of the mouth (high, mid, low) and whose columns indicate the part of the tongue that is raised (front, central, back). The simple vowels recognized in our analysis are as follows:

	Front	Central	Back
High	[ī] <i>beet</i> [i] <i>bit</i>		[ū] <i>boot</i> [u] <i>book</i>
Mid	[ā] <i>bait</i> [ĕ] <i>bet</i>	[ŭ] <i>but</i> [ə] <i>alone</i>	[ō] <i>boat</i>
Low	[ă] <i>bat</i>		[ä] <i>bother</i> [ö] <i>cot</i> [ò] <i>caught</i>

Notice that [ù] is close to [ū], and that [ò] and [ä] are close to [ö].

Ten vowel sounds come in five short/long pairs:

Short	Long
[ă] <i>bat</i>	[ā] <i>bait</i>
[ĕ] <i>bet</i>	[ē] <i>beet</i>
[ĭ] <i>bit</i>	[ī] <i>bite</i>
[ö] <i>got</i>	[ō] <i>goat</i>
[ŭ] <i>but</i>	[ū] <i>boot</i>

There is a second long <u> recognized in our analysis, [yū], as in *cute*, contrasting with [ū] in *coot*. It is essentially a [diphthong](#). See [Vowel lengthening and shortening](#). (EDLL, OCEL, AES, 201-06, 210-12)

Wear, ware, where; were, we’re. In this group *wear*, *ware*, *where* are [homophones](#), which can always be problems for spellers; *were* and *we’re*

are near [homographs](#), which shouldn't be too problematic – if students remember that [apostrophe](#) in the [contraction](#) *we're*.

These homophones have many historical sources and are often the product of changes in vowel pronunciations and spellings in earlier English, which are complicated further by the effects of [r] on preceding vowels. Alas, I know of little specific historical information that would be useful in the elementary or secondary classroom. But on the assumption that it is always better to know your enemies, here are the most common instances of the homophonic spellings <ear>, <are>, and <ere>:

Like *wear*: *bear, pear, swear, tear* “rip” (vb.).

Like *ware*: *bare, care, compare, dare, declare, fare, flare, glare, hare, mare, prepare, rare, scare, share, snare, spare, square, stare*.

Like *where*: *ere*, plus *there* and *where* and their compounds, such as *thereafter, wherever*, and the like.

Webster, Noah. In 1783 the American Noah Webster (1758-1843) published the first volume of *A Grammatical Institute of the English Language* – known in later editions as the *American Spelling Book*, then the *Elementary Spelling Book*, or ‘the Blue-back Speller’ – which conveyed to generations of Americans Webster’s nationalistic and pedagogical enthusiasm for spelling reform and simplification. Still in print, it was clearly the most successful language arts text ever published. In 1806 he published his *Compendious Dictionary of the English Language*, which included a generous sampling of his reformed spellings. In 1828 far fewer of his reforms were included in his much expanded *An American Dictionary of the English Language*.

Webster competed with and could be acidly critical of [Samuel Johnson](#), whose *A Dictionary of the English Language* (1755) dominated spelling practices not only in Britain but also in the 18th and early 19th centuries in America. Webster argued for an American spelling distinct from British for reasons partly pedagogic, partly nationalistic, partly economic. In time American readers, writers, and publishers began to be influenced by the finally rather modest spelling reforms in Webster’s spellers and his 1828 dictionary, and by the fact that Americans tended to prefer simplification and were less concerned than Johnson had been with British traditions. For more on Webster (and Johnson), see my “The Evolution of British and American Spelling” in *The Routledge Handbook of the English Writing System* (V. Cook and D. Ryan, eds.) London & New York: Routledge, 2016. pp. 275-292).

Wessex and the West Saxon dialect. See [Alfred the Great](#).