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Morphology Matters
Building Vocabulary Through Word Parts
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b. terminology
c. Anglo-Saxon, Latin, & Greek characteristics

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Terminology for Morphology Study (K-2)

<u>affix</u>	prefix or suffix that can be attached to the base
<u>base</u>	morpheme that holds the core meaning of a word; every word has one
free base	stands alone; often called base word (e.g., <u>port</u>, <u>kind</u>)
bound base	only appears as part of a larger word (e.g., <u>struct</u>, <u>mit</u>)
<u>base</u> <u>word</u>	free base; word even when no affixes are added (e.g., <u>kind</u>)
<u>final</u> <u>stable</u> <u>syllable</u>	cluster of letters at the end of a word whose pronunciation remains consistent regardless of the word in which it appears (e.g., -<u>tion</u>, -<u>ble</u>, -<u>ture</u>); *not* synonymous with the term suffix
<u>morpheme</u>	smallest component of a word that has meaning
<u>phoneme</u>	smallest unit of speech sound (e.g., /b/, /ch/)
<u>prefix</u>	affix placed before the base of a word (e.g., <u>pre</u>-, <u>ab</u>-)
<u>root</u>	word in an origin language from which English bases are derived; (sometimes, the term root is used to identify bases)
<u>suffix</u>	affix placed after the base of a word

derivational (lexical): (shifts part of speech)	vowel: -able, -ance, -ate, -ish, -ive, -ize, -ous, -us consonant: -ly, -like, -ment, -ful, -tude, -less
inflectional (grammatical): (does not shift part of speech)	vowel: -ed, -er, -es, -est, -ing consonant: -ly, -'s, -s

Some Affixes to Begin With For K-2 Students

Below is a list of affixes good for younger students. Note that all are Anglo-Saxon except re-, which comes from the Latin.

Basic Prefixes			Basic Suffixes		
un-	(not)	unlock	-s	(plural)	cups, books
re-	(again)	rewrite	-es	(plural)	dishes, boxes
re-	(back)	return	-ing	(present part.)	jumping
			-ed	(past part.)	jumped
			-er	(person)	teacher
			-er	(comparative)	larger
			-est	(superlative)	largest
			-ful	(full of)	careful
			-less	(without)	nameless

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<u>suffix</u>	affix placed after the base of a word

derivational (lexical): (shifts part of speech)	vowel:	-able, -ance, -ate, -er (noun), -ish, -ive, -ize, -ous, -us
	consonant:	-ly, -like, -ment, -ful, -tude, -less
inflectional (grammatical): (does not shift part of speech)	vowel:	-ed, -er (comparative), -es, -est, -ing
	consonant:	-ly, -'s, -s

<u>assimilated</u> <u>prefix</u>	prefix (often nicknamed chameleon) where, for ease of pronunciation, the final letter changes according to the initial letter of the base to which it is attached (e.g., <u>ad</u>- changes to <u>ar</u>- before <u>range</u> to make <u>arrange</u>; <u>in</u>- changes to <u>im</u>- before <u>pact</u> to make <u>impact</u>)
<u>element</u>	(sometimes called combining form) often used to describe Greek-based bases and affixes (e.g., <u>phone</u>, <u>crat</u>, <u>phys</u>, <u>epi</u>-, <u>a</u>-)
<u>connective</u>	letter(s) in English words used to combine two morphemes; connectives function as glue and have no meaning (not morphemes)
Latin-based	connect a base to a suffix or two suffixes to each other (e.g., pal<u>i</u>mony, grad<u>i</u>ent, mon<u>u</u>ment). -<u>i</u>- and -<u>u</u>- are connectives; while -<u>ul</u>- is sometimes identified as a connective, it is actually suffix -<u>ule</u>, where the <u>e</u> has dropped before a vowel suffix
Greek-based	connective -<u>o</u>- often joins two elements (e.g., phot<u>o</u>graph, dem<u>o</u>cracy)

note: *Because in linguistics the term "root" refers to the word (in another language) from which our current stem or base is derived, base is a more clear term to describe the core meaning in an English word. Often, however, in word study with students, the term "root" is used interchangeably with "stem" and "base."*

Phoneme/Morpheme Analysis
Let's figure out the difference between phonology and morphology!

Word	Phoneme Count	Morpheme Count
c u p s	_____	_____
b l e n d	_____	_____
p h o n e	_____	_____
c a l l e d	_____	_____
r e c a l l i n g	_____	_____

Identifying Morphemes
Underline the base words. Box the affixes (prefixes and suffixes).

cook	likeness	cried
cooking	liking	understandable
overcooked	likelihood	tailspin
ship	likeliest	underactive
reship	name	hopefully
shipwreck	naming	unwholesome
shipment	nameless	booklet

Selecting Word Origins

Label each word as AS = Anglo-Saxon; G = Greek; or L = Latin

sing	surreptitious	regenerate	hundred
mutual	what	phase	evacuate
monochrome	telepathy	those	phonics
forty	from	abbreviate	incredulous
declension	manuscript	phonograph	moat
pyre	pathology	epidemic	recuperate
expenditure	does	miss	
laugh	white	abnormal	
orchid	biology	contraception	
distribute	consequence	elbow	
psychology	watch	philanthropist	

bonus words:
biodegradable
graphomotor
subatomic

Basic Word Matrix Work

word matrix

un		able
re	**teach**	er
pre		es
mis		ing

word sums

teach + er ➜ teacher

_____

_____

_____

_____

Why We Don't Use =

bat + er ➜ batter
rake + ing ➜ raking
cry + ed ➜ cried

Discovery Learning

_____ + _____ ➜ trees

____ = _____

examples: _____

_____ _____

_____ + _____ ➜ unhappy

_____ = _____

examples: _____

_____ _____

_____ + _____ ➜ larger

_____ = _____

examples: _____

_____ _____

_____ + _____ ➜ leader

_____ = _____

examples: _____

_____ _____

_____ ➜ _____

_____ = _____

examples: _____

_____ _____

Suffixes Both Determine & Change Part of Speech

noun	verb	adjective	adverb
joy	rejoice(s,ing,ed) enjoy(s,ing,ed)	joyous joyful	joyfully
peace		peaceful	peacefully
hunger	hunger(s) hungered hungering	hungry	hungrily
expanse expansion expansiveness	expand(s) expanding expanded	expansive expandable	expansively
darkness dark	darken(s) darkened darkening	dark darker darkest	darkly
act action actor	act(s) acted acting	active	actively
loudness	-	loud louder loudest	loudly
dependence	depend(s) depended depending	dependent dependable	dependently
sleep sleeper sleepiness	sleep(s)	sleepy	sleepily

Note: -ed and -ing verbs can also serve as adjectives (called participles).

Morpheme Instruction at the Elementary Level:
A Week's Lesson in E.L.A.

1. Introduce.
   a. Write the morpheme for students to see. Write affixes with dashes to show they attach to bases. (e.g., -s, un-)
   b. Have students trace and write the morpheme, naming its letters as they write.
   c. If the morpheme is bound, write it in a keyword to show how it is used.
   d. Have students pronounce, trace, and write the keyword, naming its letters as they write.
   e. Explain and write the meaning of the morpheme. (Either use direct instruction or, wherever possible, help students use discovery learning to uncover its meaning.)
   f. Provide or ask students to create a personal card with the morpheme on the front and its keyword and meaning on the back.
   g. Using a Post-it, add the morpheme to the morpheme wall or chart.
2. Generate with the students a list of words that contain the new morpheme.
3. Ask questions to help students generate other known words that contain the morpheme.

   (e.g., for un-: "What would a word be for 'not kind'?" (unkind)

   (e.g., for port: "What would a word be for 'to carry back'?" (report)
4. Have students build a matrix or build word sums from an existing matrix for the morpheme.
5. Have students locate and underline the morpheme in words containing it. Alternatively, have the students complete word sorts.
6. Have students participate in morphemic awareness activities (oral manipulation of morphemes in words). Use felts or chips to represent the morphemes you move just as you would for phonemic awareness activities. (See Donah's texts for scripted activities.)

Instructor: Say <u>teach</u>.	*Student:* <u>teach</u>
Instructor: Add /ing/ to <u>teach</u>.	*Student:* <u>teaching</u>
Instructor: Change /ing/ in <u>teaching</u> to /able/.	*Student:* <u>teachable</u>
Instructor: Add the prefix <u>un</u>- to teachable.	*Student:* <u>unteachable</u>

7. Have students read phrases/sentences that include examples of words containing element.
8. Provide word, phrase, and sentence dictation that includes examples of words containing element.
9. Have students write sentences with words containing element.
10. Have students locate words that contain familiar prefixes and bases in paragraphs or longer pieces.

* *Games and other activities can be added or even used instead of some of the activities above. See separate page of supplemental activities.*

Morphology & The Three Great Spelling Rules

Silent-E Spelling Rule: Drop the e before adding a vowel suffix.

hope + less ➜ hopeless
hope + ed ➜ hoped
in + vade + ing ➜ invading
race + i + al ➜ racial

re + late + ion ➜ relation
place + ate + ing ➜ placating
in + vase + ion ➜ invasion
com + pro + mise + ing ➜ compromising

CVC (or 1-1-1) Doubling Rule: In 1 syllable words ending in consonant-vowel-consonant (cvc), double the final consonant before adding a vowel suffix.

double:
ship + er ➜ shipper
snag + ed ➜ snagged
drug + ist ➜ druggist

do not double:
ship + ment ➜ shipment
last + ing ➜ lasting
host + ess ➜ hostess

Y Spelling Rule: Never drop the y. Keep it or change it. If a word ends in vowel-y, keep the y. If a word ends in consonant-y, change the y to i unless the suffix begins with i.

vowel-y, keep the y:
boy + hood ➜ boyhood
pray + ed ➜ prayed
pay + ment ➜ payment

parlay + ing ➜ parlaying
an + noy + ance ➜ annoyance
em + ploy + ment ➜ employment

consonant-y, change the y to i:
hurry + ed ➜ hurried
study + ous ➜ studious
ready + ness ➜ readiness

fry + ed ➜ fried
party + er ➜ partier

unless the suffix begins with i (which would create a double i):
fly + ing ➜ flying

study + ing ➜ studying

CVC (or 1-1-1) Doubling Rule-Extended: In multi-syllable words ending in consonant-vowel-consonant (cvc), double the final consonant before adding a vowel suffix if the last syllable in the baseword gets the accent.

com + mit + ed ➜ committed

trans + fer + ing ➜ transferring

Do not double if the last syllable does not get the accent.

of + fer + ing ➜ offering

lim + it + ed ➜ limited

A Note on Procedure for Word Origins

A significant conceptual difference exists between basic phonological decoding (division by sound) and morphological work (division by meaning). With morphology we no longer examine words based on syllabication; rather, we examine them based on parts for meaning. Examples are above at right. Morphological study leads to an understanding of more challenging spellings and an enhanced vocabulary.

phonological division	morphological division
e la tion	e lat ion
in som ni a	in somn i a
con tra dic tion	contra dict ion

Supplemental Activities

1. Have students write a prefix or base in the center, and map or web words that come from that morpheme. More advanced students can even link those webbed words to other prefixes and bases. An example of a simple word web for the Greek element -<u>tele</u>- is at right.
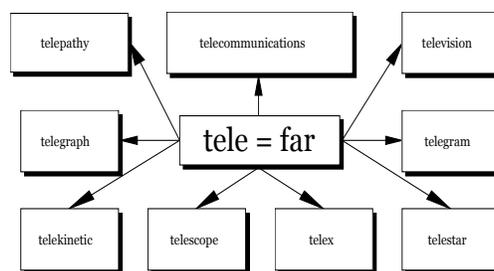
2. Have students locate words that contain familiar prefixes and bases in magazine or newspaper articles. This practice teaches students to recognize learned morphemes and proves their frequency and therefore the usefulness of studying them.

3. Provide students with a "word of the day," which they must analyze at the phonological (phonemes, syllables, blends/digraphs, etc.) and morphological (language of origin, prefix/base/suffix, advanced structures, meaning if possible) levels. This provides both review and a fascinating study!

4. Suffixes often determine part of speech. Examine these words to see how their parts of speech change as different suffixes are added:

prefix	prefix	base	connective	suffix	connective	suffix	suffix
inter	de	part		ment		al	ly
dis	pro	port		ion		ate	ly
	ad	vent		ur(e)		ous	
		nat(e)		ur(e)		al	ly
	re	med	i	at(e)		ion	
	ir	reg		ul(e)		ar	ly

Supplemental Activities (continued)

5. Have students write literal definition of given word using knowledge of element meaning, or have them provide word to match provided literal definition (crisscross sheets). An example is at right.

transport

carry   across
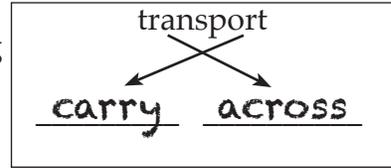
Here's a word web that incorporates criss-cross sheets, for the base port (from Latin).

transport

_____   _____

deport

_____   _____

import

_____   _____

port
(carry)

support

_____   _____

report

_____   _____

export

_____   _____

com**port**ment
ap**port**ion
op**port**unity
pro**port**ion
insup**port**able
tele**port**
unim**port**ant
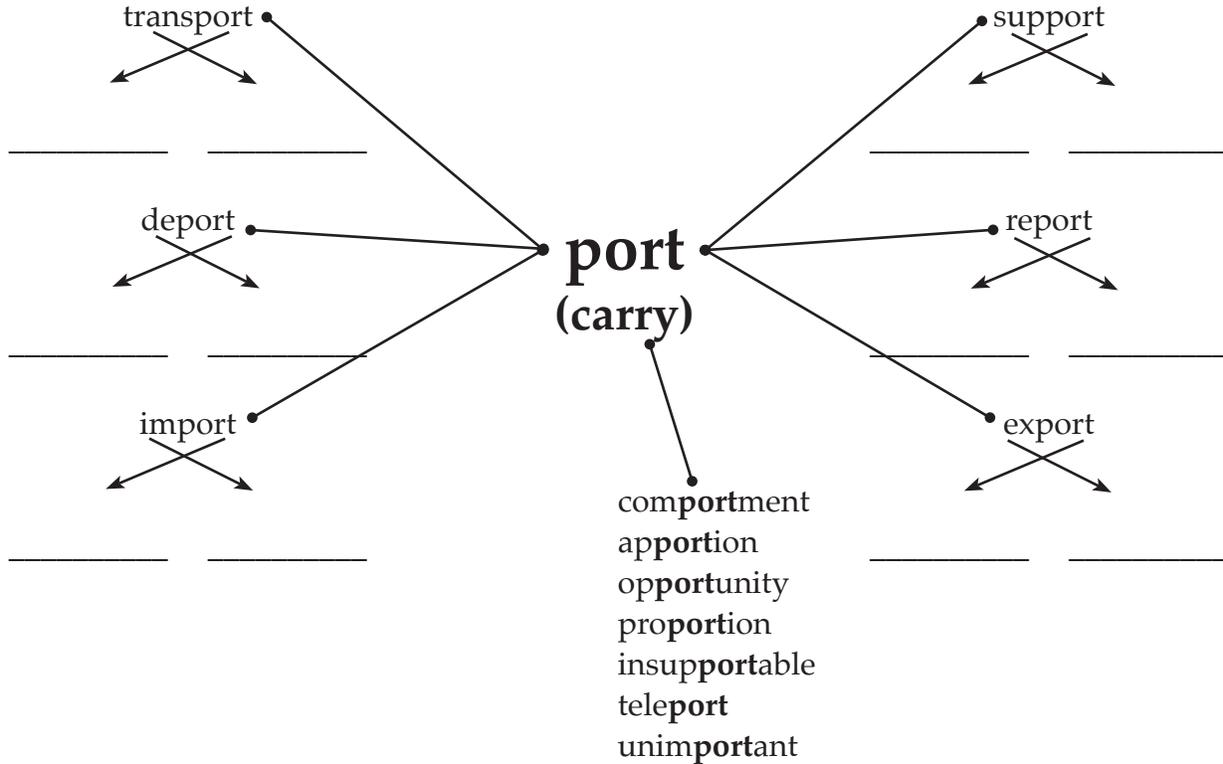
6. Latin & Greek Word Generation: Underline a recognizable morpheme, and list other words that share that morpheme.

beneficial   autograph   position

_____   _____   _____

_____   _____   _____

_____   _____   _____

_____   _____   _____

_____   _____   _____

7. Sample Activity: Sort Words by Common Morpheme

benevolent	compelling	benefactor	pedal
pedometer	polygamy	compulsory	impulsivity
polyester	expedient	polygon	beneficial
repulsive	benign	impediment	polyglot

pede	poly	bene	pel/pulse
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

8. Sample Activity: Using Matrices for Word Building

de / re	con		ible		*structure*
in	de	**struct**	ing		_____
		"build"	ion		_____
in / ob			or		_____
			s		_____
		ure	al	ly	_____
			ed / ing / s		_____

_____   _____

_____   _____

Latin template: 55% of English words
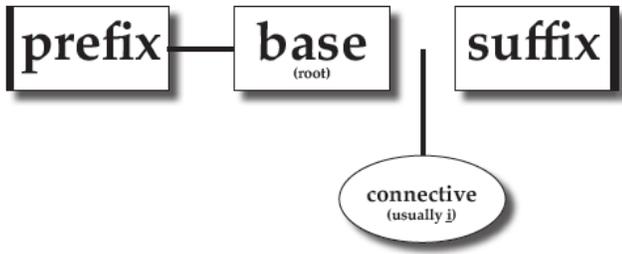
Greek template: 11% of English words

9. Sample Activity: Identifying Morphemes

Underline <u>bases</u>, circle connectives, and box affixes.
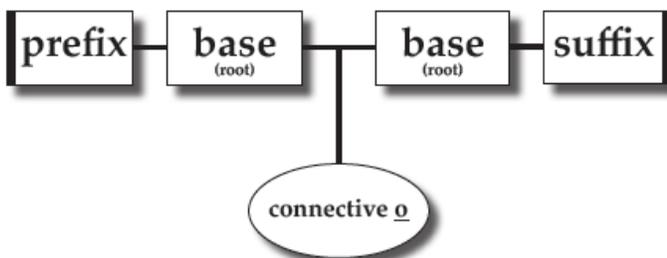
Latin structure

confide

eruption

counterproposal

regenerative

Greek structure

psychometrics

photographic

synchronize

sympathetic

10. Sample Activity: Sister Words for Shared Meaning

challenge	sister word	shared meaning
perturbed	disturb	_____
benefactor	benefit	_____
rupture	disrupt	_____
amiable amicable	amigo	_____
envision	vision	_____
enclosure	close	_____
antibiotic	antisocial biology	_____ _____
autobiography	automobile biology paragraph	_____ _____ _____
euphony euthanasia	euphemism eulogy	_____ _____
geothermal	geography Thermos	_____ _____

A Technique for Reviewing Word Parts & Vocabulary Terms Independently

To study your cards use "The Box Method"!

1) Put down 4 cards to form your "BOX"
   Word up, definition down:

democracy	convention
primary	delegate

2) Quiz yourself
   Pick up a card, do you know the definition?

   YES! Set it aside, and place a new card in your box.

   NO... carefully review the back of the card until you feel you know it, then put it back in your box, and choose another card from your box to answer. No card leaves the box until you get it right once. Keep putting aside the cards you know and reviewing the ones you don't until you know them all!

3) Now try it with the definitions up!

This is a much more effective way to learn your cards than just flipping through the deck!

"The Box Method" William Van Cleave & Shirley Kokesh
Instruction sheet by Susan Schambach and Cheryl Swanson, Triad Academy, Winston-Salem, N.C.

Identifying Morphemes: The /shun/ Question

1. Underline the <u>base</u>.   2. Box any affixes.   3. Circle any connectives.

	contraction	regression	magician
Guess	c o n t r a c t i o n	r e g r e s s i o n	m a g i c i a n
Correct Answer	c o n t r a c t i o n	r e g r e s s i o n	m a g i c i a n

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morpheme	meaning	sample word
Anglo-Saxon Prefixes		
a-	on, in	across
for-	away, against	forbid
fore-	before, ahead	forehead
mis-	wrong(ly)	mistake
out-	beyond	outlaw
un-	not	unhappy
under-	below	underrate

morpheme	meaning	sample word
Anglo-Saxon Suffixes		
-ed	past tense	jumped
-ly	adverb	likely
-ful	quantity noun	spoonful
	adjective	doubtful
-ful + -ly	adverb	hopefully
-less	adjective	worthless
-ness	noun	darkness
-ing	verb	digging
-er	comparative adj.	greater
-est	superlative adj.	greatest
-ish	adjective	brownish
	verb	furnish
-hood	noun	adulthood

morpheme	meaning	sample word
Latin Prefixes		
ab-, abs-	away from	absent
circum-	around	circumference
contra-counter-		
	against	contradict
de-	down from, concerning	descend
extra-	beyond	extraordinary
inter-	among, between	interrupt
multi-	many	multimillionaire
per-	through	perforate
	completely	perfect
post-	after	postpone
pre-	before	preview
pro-	for, forth	proceed
re-	again	recopy
	back	reject
se-	apart from	separate
super-	over	supervise
trans-	across	transport

Assimilated Latin Prefixes

Often, instructors teach the core prefix (e.g., ex-) early on, returning later to add its assimilations when students are ready.

ex- (e-, ef-)	out of	exit
dis- (di-, dif-)	apart	distant
	not	dissatisfied
ad- (ac-, af-, ag-, al-, an-, ap-, ar-, as-, at-)		
	to, toward, at	advance
ob- (oc-, of-, op-)	object	against
sub- (suc-, suf-, sup-)		
	under	submarine
con- (com-, col-, cor-)		
	with, together	construct
in- (im-, il-, ir-)	in	invade
	not	insane

morpheme	meaning	sample word	morpheme	meaning	sample word
Latin Bases			pone, pose, pound press	put, place press	position press
			quest, quire, quise	ask, seek	question
transparent			sede, side, sess	sit	residence
aud	hear	audio	sense, sent	sense, feel	sensitive
dice, dict	say	dictate	sist, stance, stant, state, stite	stable	stand
ject	throw	eject			
mise, miss, mit	send	mission	spire	breathe	inspire
mobe, mote, move	move	move	struct	build	structure
pel, pulse	push	expel	tain, tene, tine	hold	container
port	carry	portable	tend, tense, tent	stretch, strain	tension
rupt	break	interrupt			
scribe, script	write	script	vail, vale	be strong, power	value
spece, spect, spice	see	spectacles			
tract	drag, pull	tractor	vene, vent	come	convention
vide, vise	see	video	verse, vert	turn	invert
			vite, vive	live	survive
main list			voce, voke	call	vocal
cape, capt, ceive, cept, cipe	take	capture			
cede, cess	go, yield	recede			
cide, cise	cut, kill	scissors			
claim, clame	call out	exclaim			
clause, close, clude, cluse	close, shut	closet			
crede	believe	credit			
course, cur, curse	run	current			
duce, duct	lead	educate			
face, fact, fect, fice	make	factory			
feder, fide	trust	federal			
fer	carry	refer			
fine	end, limit	finish			
flect, flex	bend	flexible			
form	form	form			
gene, gener	birth, origin	gene			
grade, gress	walk, step, move	progress			
lect, lege, lige	choose, speak, read	elect			
pede	foot	pedal			
pend, pense	hang, weigh	pendulum			
plice, ply	fold	reply			

There are a number of Greek morphemes worth learning though Greek bases and affixes typically appear in more specialized vocabulary.

Of the many Greek morphemes, graph, gram, which means write, is particularly common and worth teaching first. Others can be found in the *Everything* text.

Some Sample Matrices

duct matrix

prefixes		duct / lead	suffixes
	ab / de / re / se		ed / ile / ing / ion / or / s
non / super	con		
re	intro		
co / post / re / un / under	pro		ive / ly / ness

duce matrix

prefixes		duce / lead	suffixes
	con / de / re / se		ate → ed / ion / al / ly
mis / re / un	e		er / ible / ment
re	in / intro		
co / over / re	pro		ive / ness

poly "many"

poly "many"	base	suffixes	
	gam	ist → s	
	gam	y	
	gon	al	
	graph	s	
	nom	ial → s	
	pept	ide → s	
	phag	ia	
	the	ism	
	the	ist → ic	
	ureth*	ane	
	ploid		
un	satur	ate	ed

act — *do, perform*

Prefixes (left):
- play
- counter, de, hyper, in, inter, over, retro, trans, under
- co / re + en
- in + ex
- bi + o
- counter, hyper, non, over + re
- bi + o

Suffixes (right):
- ability, able, ant, ed, ing, s
- i + tude
- ion + able, al, s
- ive + ate + ed, ing, ion, s
- ive + ity, ly, ness
- or + ess + es
- or + s
- u + al + ity + es
- u + al + ly
- u + ary, ate

Useful Morphology Resources

Books:

Anderson, C. Wilson, T. Elli Cross, and Joan Stoner. *VAK Tasks*, *Intermediate Prefixes, Roots and Suffixes* series, *Essential Roots* series, *Essential Prefixes* series. *Workbook of Resource Words for Phonetic Reading*. wvced.com. (several series for middle and high school)

Barr, Cooper, Follis, Lindsay, Parsons. *Prefixes, Roots, Suffixes*. (3 reference texts.) wvced.com.

Bowers, Peter. *Teaching How the Written Word Works*. wvced.com. (matrices)

Donah, Sandra. *Improving Morphemic Awareness Using Latin Roots & Greek Combining Forms*. wvced.com. (morphological awareness-advanced)

Donah, Sandra. *Improving Morphemic Awareness Using Base Words & Affixes*. wvced.com. (morphological awareness-basic)

Gold, Diane Hickey, Elaine Russo, Linda Wallace, Judy Shapiro. *PS: Prefixes, Suffixes, Roots (A Resource of Lists, Phrases, Sentences, Poems, and Stories)*. wvced.com. (sequenced lessons, including words, phrases, sentences, and passages-basic level)

Gold, Diana Hickey, Elaine Russo, Linda Wallace, Judy Shapiro. *PPS: Advanced Prefixes, Suffixes, Roots, and Connectives (Resource of Lists, Phrases, Sentences, Stories & Activities)*. wvced.com. (sequenced lessons, including words, phrases, sentences, and passages-advanced level)

Kleiber, Margaret. *Specific Language Training: An Orton-Gillingham Curriculum for Adolescents*. wvced.com. (adolescent Orton-Gillingham curriculum)

Morgan, Kenneth B. *Dynamic Roots - Language Training Program.* wvced.com. (sequenced lessons, including words and sentences, thorough teacher's manual, and practice pages for each root)

Van Cleave, William. *Everything You Want To Know & Exactly Where To Find It: A Reference Guide for Teachers of Orton-Gillingham & Other Multisensory Approaches.* wvced.com. (reference guide with teaching concepts and word lists covering morphological concepts--in addition to basic O.G.)

Van Cleave, William & Caroline Dover. *Phrases & Sentences for Reading & Spelling*. wvced.com. (words from *Everything* text organized by concept and used in phrases and sentences)

Other Resources:

Morphology Deck (wvced.co)
Phonics Dice Deluxe & Phonics Dice Booster Kit (wvced.com)
Various games and activities (wvced.com)

Vocabulary & Morphology Websites:

etymonline.com   dictionary.com   vocabulary.com   visualthesaurus.com
matrix maker (Bowers & Ramsden): http://www.neilramsden.co.uk/spelling/matrix/index.html

Selected Research Supporting Morphological Intervention:

Bowers, P. N., Kirby, J. R, & Deacon, S.H. 2010. "The effects of morphological instruction on literacy skills: A systematic review of the literature." *Review of Educational Research*, 80, 144–179.

Goodwin, A. P., & Ahn, S. 2010. "A meta-analysis of morphological interventions: effects on literacy achievement of children with literacy difficulties." *Annals of Dyslexia*, 60, 183–208.

Goodwin, A. P. & Ahn, S. 2013. "A Meta-Analysis of Morphological Interventions in English: Effects on Literacy Outcomes for School-Age Children." *Scientific Studies of Reading*, 1–29.

ORIGINS OF ENGLISH

Names 4%

Other 6%

Greek 6%

Latin 29%

Germanic (OE, ME, ON, Dutch) 26%

French (mostly from Latin) 29%
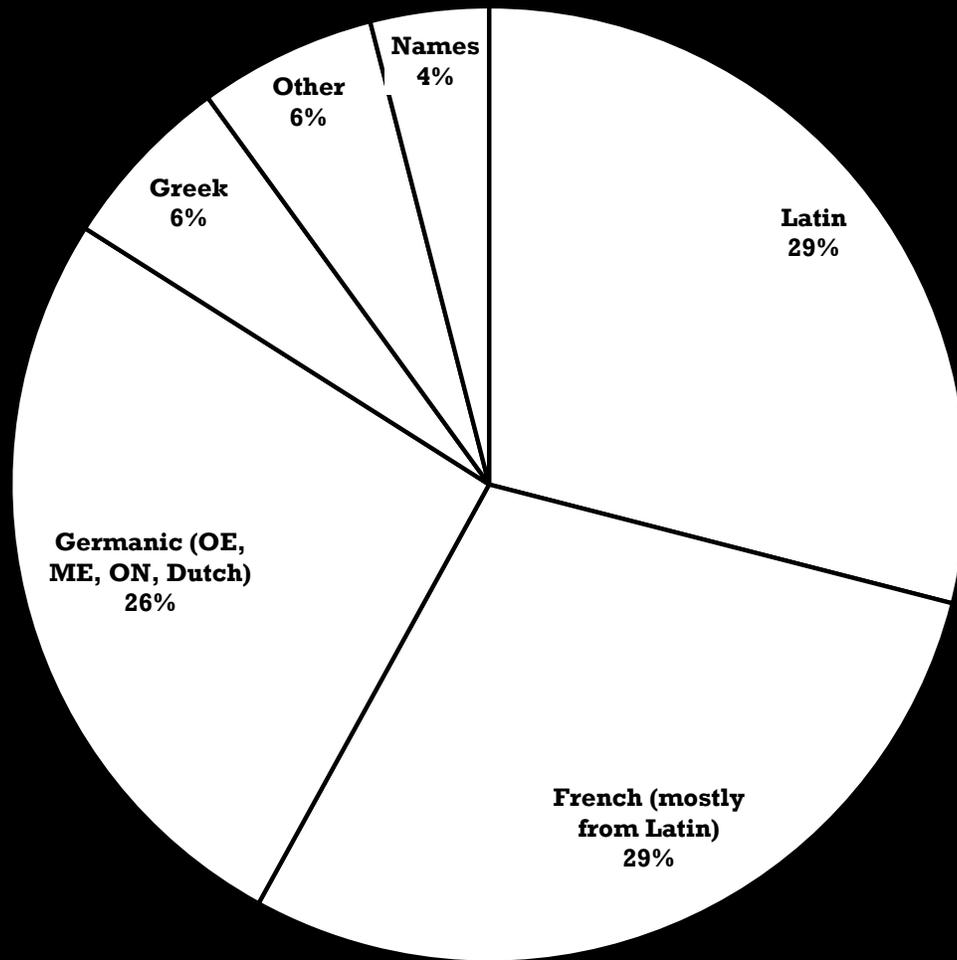
Important Notes:

- The % of Greek-based words in English hovers between 6-11% overall, but counting only science terminology moves that number up to 70%.
- 90% of new words to English are of Greek and/or Latin origin.

Word Origins Resources

Carreker, Suzanne. *Word Detective: Discovering The History of The English Language*. neuhaus.org. (word origins for younger students)

Durkin, Philip. *Borrowed Words: A History of Loanwords in English.* Oxford University Press, 2014.

Harper, Douglas. etymonline.com. (best online resource for etymological study)

Kemmer, Suzanne. Words In English (website). ruf.rice.edu/~kemmer/Words04. (website on history of English)

King, Diana Hanbury. *English Isn't Crazy! The Elements Of Our Language And How To Teach Them*. proedinc.com. (straightforward history of English)

Van Cleave, William. *Everything You Want To Know & Exactly Where To Find It: A Reference Guide for Teachers of Orton-Gillingham & Other Multisensory Approaches.* wvced.com.

Tracking Word Origins

Latin Origins: 55%

General Trends

prefix — base — **suffix** — connective (usually i)
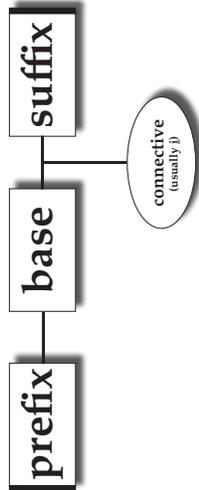
usually multisyllabic words

few vowel teams besides ai: assail, retain

typically academic, Tier 2 words

Common Structures

connectives i and u: binomial, solitude, conspicuous

ti, si, and ci = /sh/: notation, crucial

tu = /choo/: eventual, fortunate, spatula

ture = /cher/: adventure, signature, nature

chameleon prefixes: attention, collapse

ct, pt: act, tempt

soft c before e or i: certain, city

Anglo-Saxon Origins: 20%

General Trends

usually monosyllabic words

numbers 1-1000: one, twenty, hundred

basic color words: brown, green, red

simple body parts: arm, throat, thigh

short non-phonetic words: could, do

most vowel teams: boat, house, feel

short words with silent letters: ghost, know

typically everyday, Tier 1 words

Common Structures

ff-ll-ss words: cliff, tall, grass

ch = /ch/: chore, chin, bench

ck, tch, and dge: back, witch, edge

th in short words: than, thin, thick

k in short words: keep, kill, kind

wh: when, whisper

ng: hang, song, sting

wr: wrist, write

wild/old words: child, mind, post, told

2-syllable consonant-le words: bubble, fizzle, trickle

Greek Origins: 11%

General Trends

prefix — base — base — suffix — connective o
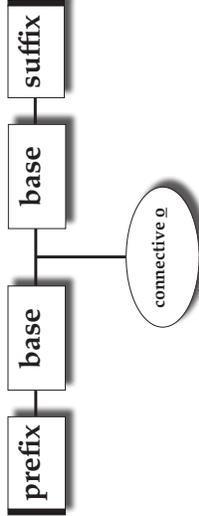
often involve science, school, or the arts

typically domain-specific, Tier 3 words

Common Structures

connective o: democrat, photograph

y = i: cyclone, gym, myth, type

ph = /f/: phobia, phonics, typhoon

ch = /k/: monarch, orchid, school

silent initial p: pneumonia, psychology

k in longer words: kilometer, kinesthetic

th in longer words: athlete, thyroid

-logy: archaeology, biology, technology

suffix -ic: charismatic, chronic, music