


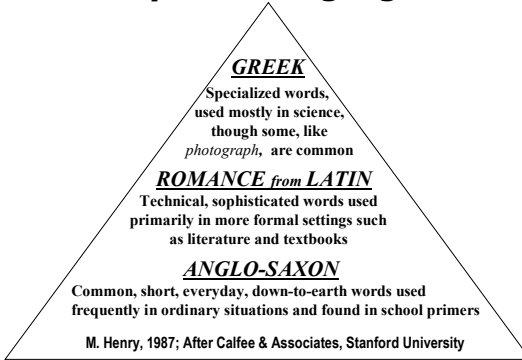
Morphology: The Importance of Etymology and Morphemes for Decoding, Spelling, Vocabulary & Fluency

Rocky Mountain Branch IDA
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Marcia Henry, PhD



Layers of Language



GREEK
Specialized words, used mostly in science, though some, like *photograph*, are common

ROMANCE from LATIN
Technical, sophisticated words used primarily in more formal settings such as literature and textbooks

ANGLO-SAXON
Common, short, everyday, down-to-earth words used frequently in ordinary situations and found in school primers

M. Henry, 1987; After Calfee & Associates, Stanford University

English: A Polyglot

“The truth is that if borrowing foreign words could destroy a language, English would be dead (borrowed from Old Norse), deceased (from French), defunct (from Latin) and kaput (from German). When it comes to borrowing, English excels (from Latin), surpasses (from French) and eclipses (from Greek) any other tongue, past or present.”

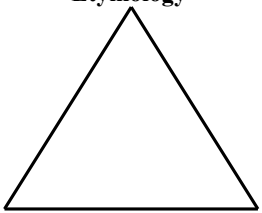
Claiborne, R. (1983). *Our marvelous native tongue: The life and times of the English language*. New York: Times Books (p. 4)

	Letter-Sound Correspondences	Syllable Patterns	Morpheme Patterns
Anglo-Saxon			
Latin			
Greek			

Framework for Decoding/Spelling Curriculum and Instruction

M. Henry, 1987, 2003

Orthographic Reference Points



Concept by Pete Bowers: “The Analogy of Triangulation”;
Dennis Wimer: “The Ologies of Language”

Etymology

et . y . mol . o . gy (ĕt'ə-mŏl'ə-jē) n., pl. -gies.

- The origin and historical development of a linguistic form as shown by determining its basic elements, earliest known use, and changes in form and meaning, tracing its transmission from one language to another, and identifying its cognates in other languages.
- The branch of linguistics that deals with etymologies. [ME *ethimologie* < OFr. < Med. Lat. *ethimologia* < Lat. *etymologia* < Gk. *etumologia* : *etumon*, true sense of a word < *etumos*, true.]

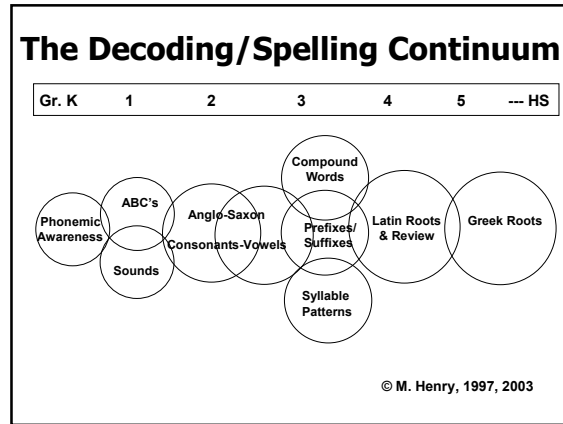
The American Heritage Dictionary of the English Language (4th edition 2000).

Morphology

mor . phol . o . gy (mōr-fōl'ə- jē) n. ...

2. Linguistics The study of the structure and form of words in language or a language, including inflection, derivation, and the formation of compounds. [G. *Morphologie* : Gk *morphē*, shape + Gk. *logos*, word, discussion.]

The American Heritage Dictionary of the English Language (4th edition 2000).



Anglo-Saxon Morphemes

Compound 2 base words:

railroad	baseball	flashlight	lamppost
bookmark	fireplace	cowboy	bluebird
starfish	shoebox	skyline	homework
backpack	butterfly	birdhouse	schoolroom

Affix to base word:

help	helper	unhelpful	helpfully
play	playing	replay	replayed
read	reading	reread	misread
spell	respell	misspell	misspelled

Common Prefixes

- in- (in or not) inborn, inland, inbred, into
- un- (not) unlike, untimed, undo, untie
- mis- (bad, wrong) misgive, misfire, misname
- dis- (not) disarm, disgrace, dislike, distrust
- fore- (before) forearm, foreword, forepaw
- re- (back, again) recall, return, restrain
- de- (down, away from) decode, defog, delight
- pre- (before) preheat, preview, pretest
- a- (on, in; to) away, alone, along, aloud

Suffix Addition Rules

1. Dropping final -e

When a base word ends with final e, drop the e before adding a suffix beginning with a vowel.

Ex. take – taking	fine – finer
stone – stony	pale – palest

But,

time – timely	blame – blameless
pale – paleness	hope – hopeless

Suffix Addition Rules

2. Double consonant rule:

(a.) One syllable words: A word ending in one consonant, preceded by one vowel, doubles the final consonant when adding a suffix starting with a vowel.

Ex. big, bigger, biggest
fit, fitter, fitting; but, fitness
ship, shipped, shipping; but, shipment

(b.) Polysyllabic words: Under the conditions of (a.), double the final consonant if the final syllable in the base word is accented.

Ex. be/gin', beginning
but -- o'pen, opening

Words from Math Texts, Gr. 4-6

addend, addition, calculation, calculator, decimal, denominator, dividend, division, multiplication, numerator, reciprocal, percentage, subtraction, geometry, nonagonal, protractor, hemisphere, circumference, congruent, diagonal, diameter, dimension, heptagon, hexagon, horizontal, intersection, isosceles, octagon, octagonal, opposite, parallelogram, pentagonal, pentomino, perimeter, polygon, rectangular, symmetry, trapezoid, millimeter, centimeter, triangle, decimeter, kilometer, milliliter, kilogram

Science Content Words, Gr. 4-6

brontosaurus, Cenozoic, dinosaurs, extinction, stegosaurus, trilobite, astronomy, atmosphere, environment, igneous, metamorphic, sedimentary, telescope, chlorophyll, amphibious, deciduous, microorganism, photosynthesis, zoology, spontaneous, aluminum, thermometer, ultraviolet, transparent, galvanometer, electromagnet, microwave, technology

Prefixes

NOTE: Teach underlined prefixes first, as they go with A-S base words

Short vowel, closed syllable
dis ex in mid mis sub un with non
 trans en mal (il, im, suf, sug, sum, sup, sus)

Short vowel and/or schwa
 a con se (at, ap, as, ac, ap; col, com)

Long vowel, open syllable
be de re pre pro tri twi
 bi co di e o (post)

-r controlled ar per sur fore (cor, ir)

2 syllable prefixes: ambi, anti, circum, contra, counter, extra, intra, inter, intro, multi, over, super, ultra

Chameleon Prefixes (Assimilated Prefixes)

in (in, not) invite, insist, increase, invest

il + l illegal, illegible, illustrate, illiterate

ir + r irregular, irritate, irrigate, irrode

im + m immune, immortal, immoral
 + b imbibe, imbalance, imbecile
 + p impart, import, impress, improve

Chameleon Prefixes (Assimilated Prefixes)

con (together, with) connect, convene, convince

col + l collect, collide, collusion, collate

cor + r correct, corrupt, corrode, correspond

com + m commit, commute, commune, comment
 + b combine, combust, combat, combatant
 + p compare, compute, compact, complaint

Chameleon Prefixes (Assimilated Prefixes)

sub (under, from below) subway, submarine
 suc + c success, succeed, succulent
 suf + f suffer, suffuse, sufficient
 sug + g suggest, suggestive
 sup + p support, suppose, suppress

ad (to, toward) address, adjust, admit
 ac account, access af afford, affection
 ag aggressive, aggravate al allow, alleviate
 ap appear, appoint ar arrest, arrive
 as assert, assort, assist at attend, attract, attest

Suffixes			
The following common suffixes are arranged in a suggested order of presentation based on the frequency of use of the suffixes & their adjacent roots.			
1	2	3	4
er	ion (tion, sion)	ar	ism
ed	most	ible, ibility	ious
ing	ous	ize	ory
en	or	ary	cial, cian
est	ess	ate	cious, tious
less	ure (ture)	ward	ation
ness	dom	age	tial
ful	ent, ence	al	cy
ly	an	ic	ile
fold	ant, ance	ity	ade
ship	ist	ee	ium
hood	ive	fy, ify	ian
able, ability	some	ty, ity	
y	ment	ling	

Suffixes that Sound the Same	
-er	(A-S) hotter, faster (adj.), skater, swimmer (noun)
-or	(L) (noun) inventor, instructor, collector,
-ess	(Fem. nouns) hostess, governess, lioness, actress
-ous	(adj.) dangerous, tremendous, adventurous
-est	(adj.) hottest, fastest, calmest, darkest, oldest
-ist	(noun-person) dentist, activist, pianist, cellist
-able	(adj) - usually w/ A-S base words: likable, eatable
-ible	(adj) - usually w/ Latin root words: edible, credible
Also: tion/sion/cian; ent/ant; ence/ance	

Latin Word Roots: Order of Presentation			
form	port	rupt	tract
scribe/script	spec/spect	stru/struct	dic/dict
flect/flex	mit/miss	fer	cred
duc/duce/duct	pel/puls	vert/vers	pend/pens
fac/fact/fect/fic	jac/jec/ject	tend/tens/tent	cur/curs
ped/pod	vis/vid	aud	leg
viv/vivi/vit/vita	greg	capit/capt	spir/spire
cap/cep/cept/cip	grad/gress/gred	voc/voke	leg/lect
Lit/liter/litera	cede/ceed/cess	ten/tain/tin	
feder/fid/fide/feal	sta/stit/sist/stet	cad/cas/cid	pon/pose
cern/cert	mob/mot/mov	gen/genus	cise/cide

Activities Related to Latin Morphemes

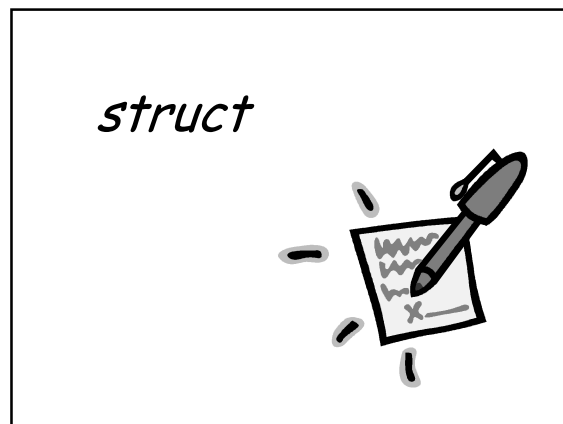
- Circle the Latin word roots in the following words:
 nondescript transference convertible
 conference attractive adversary
- Matching: Match the Latin root with the letter of the correct meaning:
 _____ rupt A. to say or tell
 _____ spect B. to breathe
 _____ dict C. to break or burst
 _____ flect D. to pull
 _____ spire E. to bent
 _____ tract F. to see
- Write the Latin root that means:
 to pull _____ to build _____
 to write _____ to bend _____
 to see _____ to break _____
 to hear _____ to run _____

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Activities for Latin Morphemes - 2

- Fill in the blanks with the best word from the following choices:
 interrupted information formality report
 convertible spectators supported formula
- 1. My _____ card had mostly A's.
- 2. My sister _____ our telephone chatter.
- 3. The building was _____ by heavy beams.
- 4. Give me new _____ on the research.
- 5. I have a new yellow _____.
- Circle a word with a Latin root to replace the underlined word(s).
 My teacher helped the principal at lunchtime.
 informer instructor reporter
 Turn in your research paper tomorrow.
 manuscript prescription protractor
- Discussion on word pairs: Compare the behavior of an *extrovert* and an *introvert*. How do *intrastate* and *interstate* highways differ?

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Find the Morphemes in These Words

<u>Word</u>	<u>Prefix(es)</u>	<u>Root</u>	<u>Suffix(es)</u>
reflection	_____	_____	_____
disrupted	_____	_____	_____
literature	_____	_____	_____
collective	_____	_____	_____
subtracting	_____	_____	_____
prescriptions	_____	_____	_____
reconstructionist	_____	_____	_____
pendant	_____	_____	_____
submission	_____	_____	_____
inspector	_____	_____	_____

Importance of Latin Roots for Spanish Speakers

<u>English</u>	<u>Spanish</u>
novelist	novelista
idealism	idealismo
experience	experiencia
variety	variedad
transportation	transportación
department	departamento

Cognates

<u>English</u>	<u>Spanish</u>
fortunate	afortunado(a)
committee	comite
attentive	atento(a)
temperament	temperamento
celebration	celebración

Greek Influence

Suppose you could examine a green part of a plant under the *microscope*. What would you see? Here are some cells from the green part of a plant. The cells have small green bodies shaped like footballs. They give the plant its green color. They are called *chloroplasts*.

Chloroplasts are very important to a plant. As you know, plants make their own food. This food-making process is called *photosynthesis*. It is in these *chloroplasts* that *photosynthesis* takes place.

Greek Combining Forms: Order of Presentation

phon/phono	photo	graph/gram	auto
tele	ology	micro	meter
therm	bio	scope	hydro
biblio	crat/cracy	geo	metro
polis	dem	derm	cycl
hypo	hyper	chron	chrom
phys	psych	techni	lex
path	peri	hemi/semi/demi	
poly	mon/mono	gon	sphere
cogn	meta	mega	arch
mech	kine/cine	phil	soph
the/theo	andr/anthr	phobia	mania
ast(astro)	archae/arche		

Greek Combining Forms M. Henry, 2003

Greek - based Word	1 st combining form	Meaning of 1 st form	2 nd combining form	Meaning of 2 nd form	Literal Definition	Dictionary Definition
autograph	auto	self	graph	written	self-written	someone's own signature
telephoto						
monologue						
microphone						
hydroscope						
psychology						

Activities Related to Greek Combining Forms

- *Nym* and *onym* are the Greek roots meaning *name*. Find as many words as possible ending in *onym*. Give examples of *pseudonyms*, *antonyms*, *synonyms*, and *homonyms*.
- Select unfamiliar words & ask questions related to word origin, clues, meaning, definition, etc.
Ex. Analyze the word *pterodactyl*. What is its origin? What are the two combining forms? What is the meaning of *ptero* and *dactyl*? In what subject areas might you find this word?
- Make a web for a Greek combining form such as *phon/phono*.
- Give students a sentence with an unknown word such as "*Heterographs* abound in the English language". Students study word using a dictionary & thesaurus to find its origin, meaning, and synonyms. Have them look for additional examples (inquiry/enquiry; catalog/catalogue).

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Greek Word Activities - 2 © M. Henry, 2003, 2005

• **Matching:** Match the letter of the correct meaning with the Greek

Combining form:

- | | |
|-------------------|---------------------|
| _____ micro | A. sound |
| _____ ology | B. life |
| _____ auto | C. watch or see |
| _____ graph, gram | D. self |
| _____ therm | E. distant |
| _____ tele | F. small |
| _____ bio | G. study |
| _____ phon, phono | H. water |
| _____ scope | I. heat |
| _____ hydro | J. written or drawn |

• Have students categorize words in a textbook chapter according to origin.

Prehistoric Times

Anglo-Saxon

Latin

Greek

- | | | |
|------------|-----------|----------------|
| earthquake | ancestors | tectonics |
| embedded | evolution | anthropologist |
| hunter | extinct | geologist |
| spearhead | aggregate | archaeology |
| imprint | volcano | pterodactyl |

Identify the Language of Origin

- | | |
|--------------------|-------------------|
| philharmonic ____ | psychology ____ |
| extraction ____ | hopelessness ____ |
| introspective ____ | laughing ____ |
| bookish ____ | manufactured ____ |
| expeditious ____ | hydrophobia ____ |
| auditor ____ | astrophysics ____ |

Jack Horner, Paleontologist

Pale + onto + logy

Pale = ancient or prehistoric

onto = being or existence

logy = study of

The study of fossils and ancient life forms

Kaleidoscope

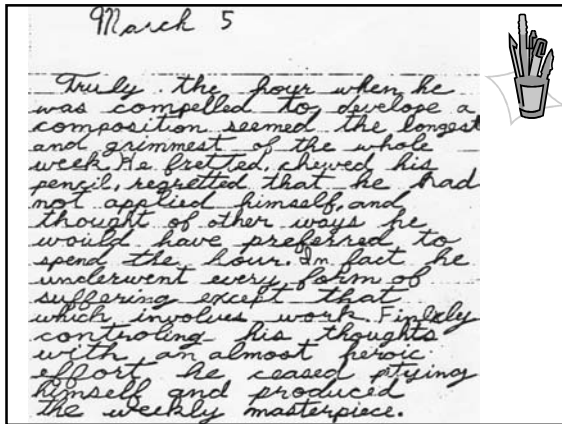
Greek: kalos - beautiful
 + eidos - form
 + scope - to see



Institutional Anniversaries

- 25 = quasiquenary
- 50 = quinquagenary (golden)
- 75 = terquasquigenary (diamond)
- 100 = centennial
- 125 = quasiquicentennial
- 150 = sesquicentennial
- 175 = terquasiquicentennial
(or septaquinaquinquecentennial!)
- 200 = bicentennial
- 225 = bicenquasquigenary
- 250 = bicenquiquagenary
- 275 = bicenterquasquigenary
- 300 = tricentennial

From the Gustavus Adolphus -- College Style Manual



To Review

<http://alternativeed.sjsu.edu/mod13.html>
free download of Marcia Henry's module on
"Effective Decoding, Spelling, and Vocabulary Instruction"

For additional modules related to language arts, math, science, & technology go to:
<http://alternativeed.sjsu.edu/modules.html>

Henry, M.K. (2003). *Unlocking Literacy: Effective Decoding & Spelling Instruction*. Baltimore: Brookes Publishing.

Henry, M.K. & Redding, N.C. (2005). *Patterns for Success in Reading and Spelling*. Austin, TX: Pro-Ed Inc.

Resources for Morpheme Instruction

- Bebko, A.R., Alexander, J., & Doucet, R. *LANGUAGE! Roots* (2nd ed.). Sopris West.
- Blanchard, C. (n.d.). *Word root series* (Level A: grades 4–6, Level B: grades 7 to adult). Pacific Grove, CA: Critical Thinking Books and Software.
- Ebbers, S.M. (2004). *Vocabulary through morphemes*. Sopris West.
- Ehrlich, I. (1988). *Instant vocabulary* (Reissue ed.). New York: Pocket Books.
- Fifer, N., & Flowers, N. (1990). *Vocabulary from classical roots*. Cambridge, MA: Educators Publishing Service.
- Henry, M.K. (2009). *WORDS: Integrated decoding and spelling instruction based on word origin and word structure*. Austin, TX: PRO-ED.
- Henry, M.K., & Redding, N.C. (1996). *Patterns for success in reading and spelling*. Austin, TX: PRO-ED.
- Johnson, K., & Bayrd, P. (1998). *Megawords series*. Cambridge, MA: Educators Publishing Service.
- Marcellaro, E.G., & Ostrovsky, G.R. (1988). *Verbal vibes series*. Sacramento, CA: Lumen Publications.
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- Rome, P.D., & Osman, J.S. (2000). *Advanced language tool kit* [Teacher's manual and cards]. Cambridge, MA: Educators Publishing Service.

Websites

- A. Word. A. Day Home Page,
www.wordsmith.org/awad/index.html
- Explore English Words by Focusing on Words,
www.wordexplorations.com
- Real Spelling, www.homepage.mad.com/spelling
- Word Root Quick Reference,
www.espine.org/roots.html
- Word Searcher, www.neilramsdan.co.uk/spelling
- The WordsWorth Compendium,
www.dictionaty-thesaurus.com
- WordWords, www.wordworkskingston.com