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# Morphology Matters!
## Building Literacy Skills Through Word Parts
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# Terminology for Morphology Study

| | |
|---|---|
| <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 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, -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."*

# 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

---

# Identifying Morphemes

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

| | | |
|---|---|---|
| cook | overheated | unworthy |
| cooking | sunset | worthlessness |
| overcooked | like | worthiest |
| heat | likely | understandable |
| heating | liking | underactive |
| heater | likelihood | hopefully |
| preheat | worth | unwholesome |

# 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)<br>enjoy(s,ing,ed) | joyous<br>joyful | joyfully |
| peace | | peaceful | peacefully |
| hunger | hunger(s)<br>hungered<br>hungering | hungry | hungrily |
| expanse<br>expansion<br>expansiveness | expand(s)<br>expanding<br>expanded | expansive<br>expandable | expansively |
| darkness<br>dark | darken(s)<br>darkened<br>darkening | dark<br>darker<br>darkest | darkly |
| act<br>action<br>actor | act(s)<br>acted<br>acting | active | actively |
| loudness | - | loud<br>louder<br>loudest | loudly |
| dependence | depend(s)<br>depended<br>depending | dependent<br>dependable | dependently |
| sleep<br>sleeper<br>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.*

# Morpheme Instruction at the Middle & High School Level:  A Week's Lesson in E.L.A.

1. Introduce.
   a. Write the morpheme for students to see.  Include appropriate dashes for affixes. (e.g., pre-, contra-, -ment, -age *but* port, struct)
   b. Have students trace and write the morpheme, naming its letters as they write.
   c. Write the morpheme 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. Provide definitions, and have students retrieve from memory other, recognizable but less familiar, words that contain the studied morpheme.
4. Have students build a matrix for the morpheme or build word sums from an existing matrix.
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>constructed</u>. | *Student:* <u>constructed</u> |
| *Instructor:* Change the /ed/ in <u>constructed</u> to /ing/. | *Student:* <u>constructing</u> |
| *Instructor:* Add <u>re</u> to the beginning of <u>constructing</u>. | *Student:* <u>reconstructing</u> |
| *Instructor:*  Drop the first prefix and the /ing/ in <u>reconstructing</u>. | *Student:* <u>construct</u> |
| *Instructor:* Add /iv/ to the end of <u>construct</u>. | *Student*: <u>constructive</u>. |

7. Have students read phrases/sentences that include examples of words containing morpheme.
8. Provide word, phrase, and sentence dictation that includes examples of words containing morpheme.
9. Have students write sentences with words containing morpheme.
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 | re + late + ion ➔ relation |
| hope + ed ➔ hoped | place + ate + ing ➔ placating |
| in + vade + ing ➔ invading | in + vase + ion ➔ invasion |
| race + i + al ➔ racial | 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:** | **do not double:** |
|---|---|
| ship + er ➔ shipper | ship + ment ➔ shipment |
| snag + ed ➔ snagged | last + ing ➔ lasting |
| drug + ist ➔ druggist | 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 | parlay + ing ➔ parlaying |
| pray + ed ➔ prayed | an + noy + ance ➔ annoyance |
| pay + ment ➔ payment | em + ploy + ment ➔ employment |

**consonant-y, change the y to i:**

| | |
|---|---|
| hurry + ed ➔ hurried | fry + ed ➔ fried |
| study + ous ➔ studious | party + er ➔ partier |
| ready + ness ➔ readiness | |

**unless the suffix begins with i (which would create a double i):**

| | |
|---|---|
| fly + ing ➔ flying | study + ing ➔ studying |

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**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 |

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# 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 -tele- 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:
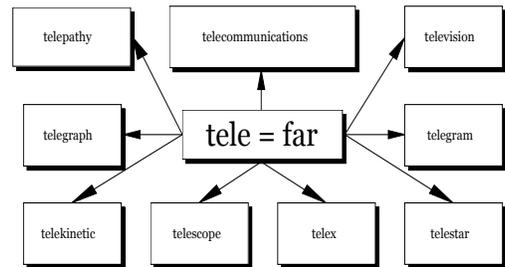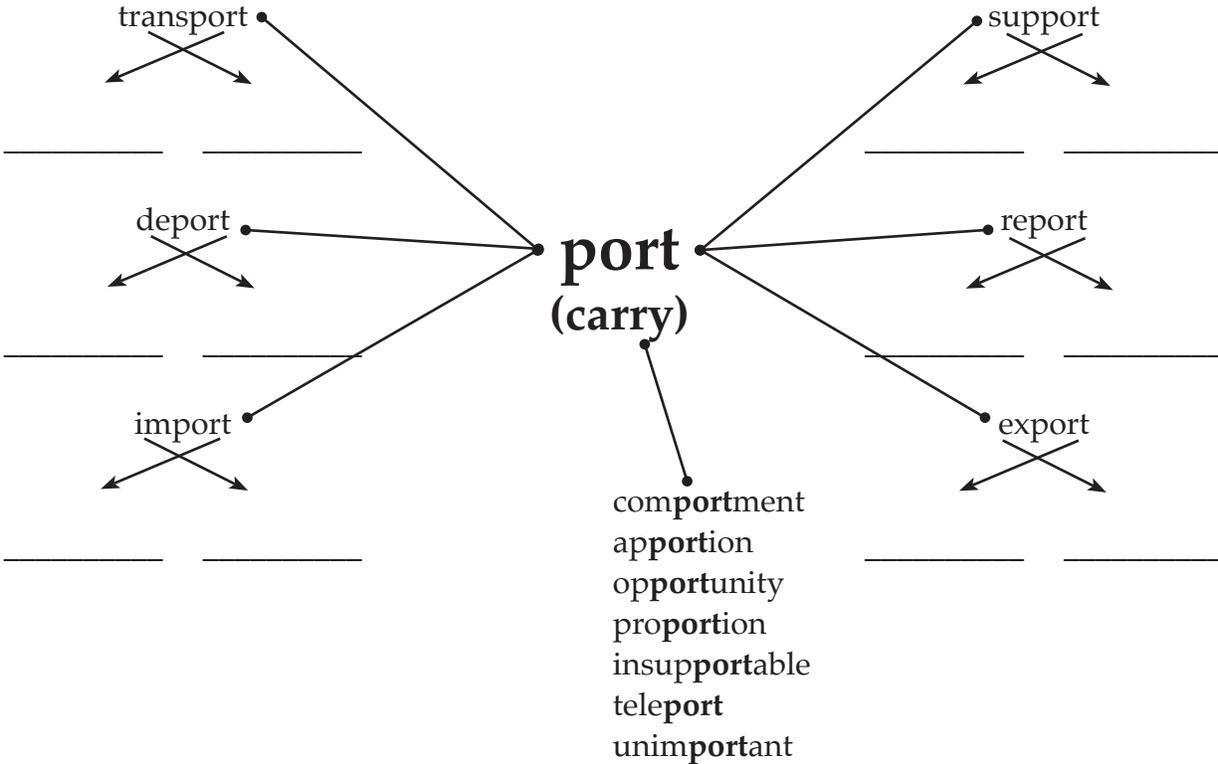
| prefix | prefix | base | connective | suffix | connective | suffix | suffix |
|---|---|---|---|---|---|---|---|
| inter | de | part | | ment | | al | ly |
| dis | pro | port | | ion | | ate | ly |
| | ad | vent | | ur(e) | | ous | |
| | | nat(e) | | ur(e) | | al | ly |
| | re | med | i | at(e) | | 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
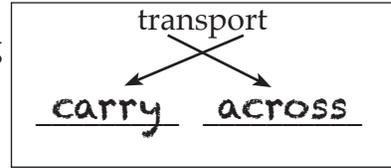
Here's a word web that incorporates criss-cross sheets, for the base <u>port</u> (from Latin).

transport •
_____  _____

• support
_____  _____

deport •
_____

**port**
**(carry)**

• report
_____  _____

import •
_____  _____

• 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

_____    _____    _____

_____    _____    _____

_____    _____    _____

_____    _____    _____

_____    _____    _____

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# 7. Sample Activity:  Sort Words by Common Morpheme

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

| <u>pede</u> | <u>poly</u> | <u>bene</u> | <u>pel/pulse</u> |
| --- | --- | --- | --- |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

# 8. Sample Activity:  Using Matrices for Word Building

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

structure
_____
_____
_____
_____
_____
_____

_____         _____

_____         _____

Latin template:   55% of English words



Greek template:  11% of English words



## 9. Sample Activity: Identifying Morphemes

Underline bases, circle connectives, and box affixes.
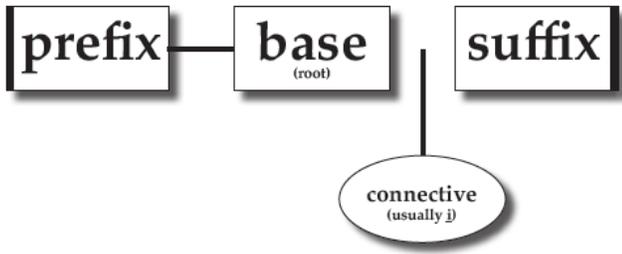
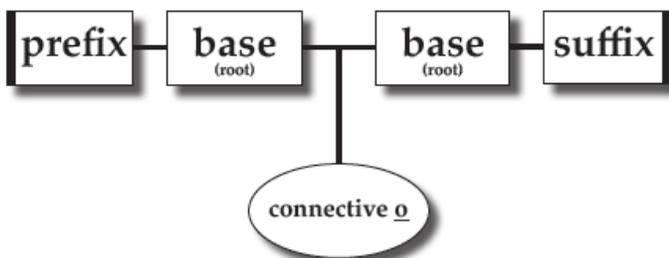### Latin structure

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!*

## Identifying Morphemes:  The /shun/ Question

1. Underline the <u>base</u>.    2. Box any <u>affixes</u>.    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
- ab / de / re / se
- non / super, con
- re, intro
- co / post / re / un / under, pro
- **duct** "lead"
- ed / ile / ing / ion / or / s
- ive, ly / ness

## duce matrix
- con / de / r / e / se
- mis / re / un, e
- re, in / intro
- co / over / re, pro
- **duce** "lead"
- ate, ed
- ion, al, ly
- er / ible / ment
- ive, ness

## phys matrix
- astro
- meta
- **ge**, o
- **phys** "natural science"
- ic, al / ist / s
- io, logy
- ique

## calc matrix
- mis / pre / re
- **calc** "stone"
- ule
- able / us
- ate, ed / ion / or / s
- ing, ly

## onym matrix
- acr / an / ep / hom / pseud / syn
- **onym** "name"
- ous

## poly matrix
- **poly** "many"
- **gam**, ist, s / y
- **gon**, al
- **graph**, s
- **nom**, ial, s
- **pept**, ide, s
- **phag**, ia
- **the**, ism / ist, ic
- **ureth***, ane
- ploid
- un, **satur**, ate, ed

*All of these matrices were created with Mini Matrix-Maker, at www.neilramsden.co.uk/spelling/matrix.*

# 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)
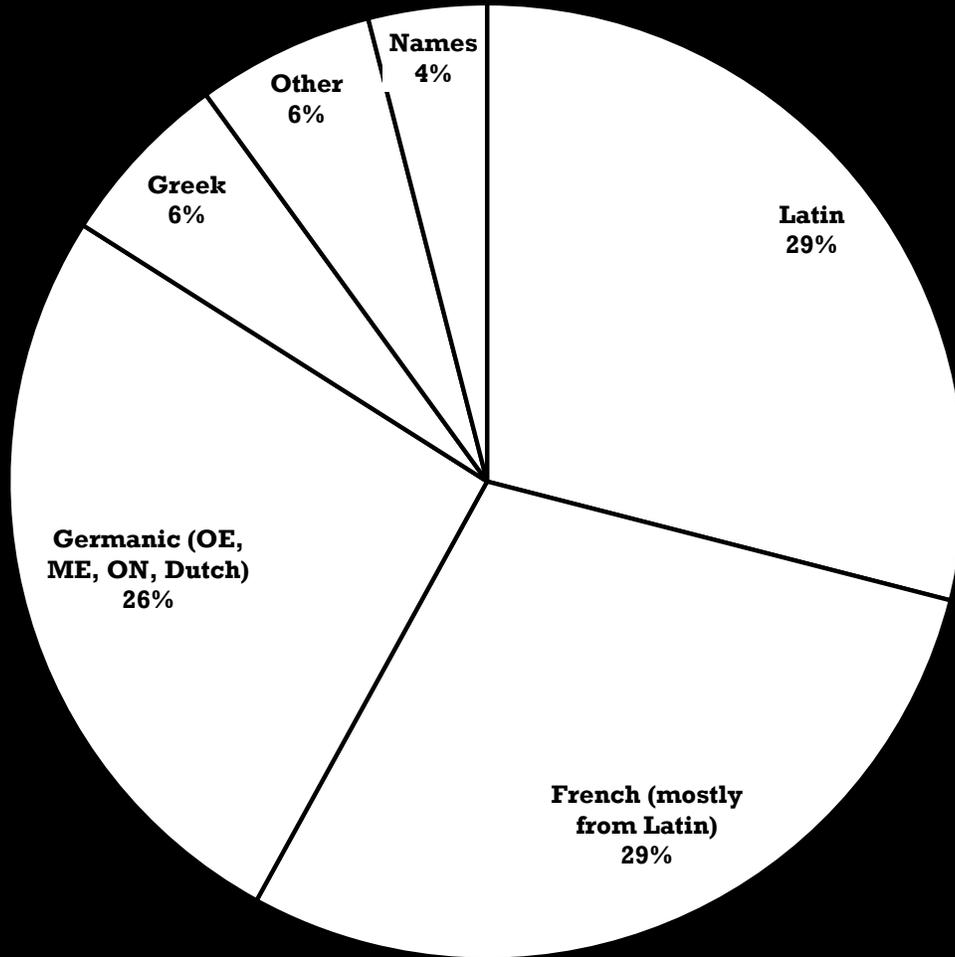Various games and activities (wvced.com)

## 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

A pie chart titled "ORIGINS OF ENGLISH" with the following segments:

- Names 4%
- Other 6%
- Greek 6%
- Germanic (OE, ME, ON, Dutch) 26%
- French (mostly from Latin) 29%
- 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)
```
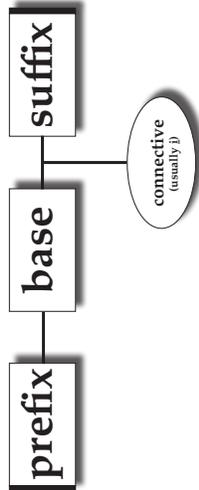
*usually multisyllabic words*

*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
```
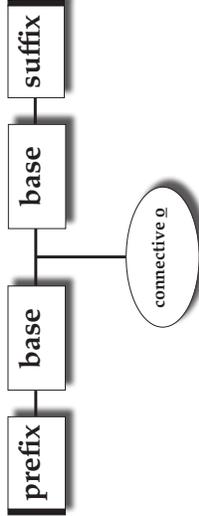
*often involve science, school, or the arts*

*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*