Structural Analysis

Common Core State Standards

Reading: Reading Foundations

Phonics & Word Recognition

> Grade Level K-5

Purpose

Use with students to support phonics and word recognition: explicitly teach structural analysis to facilitate decoding

When to Use

Before Reading During Reading After Reading

Grouping Whole Group

Small Group Partners Individuals

ABOUT THE STRATEGY

STRUCTURAL ANALYSIS is a strategy that is used to facilitate decoding as students become more proficient readers. These advanced decoding strategies help students learn parts of words so the can more easily decode unknown multi-syllabic words. In structural analysis, students are taught to read prefixes and suffixes. Students should be taught structural analysis through direct and explicit instruction, and the learned prefixes and suffixes should also be embedded into the text that they read and into spelling instruction. Educational games can be used to help students practice decoding unknown words and to reinforce the application of previously taught prefixes and suffixes.

IMPLEMENTATION OF THE STRATEGY

- Select which word part(s) you are going to teach prefixes or suffixes.
- Tell students that adding parts to a word will change its meaning. Explain that suffixes are added to the end of words and prefixes are added to the beginning of words.
- Review the prefixes or suffixes that you are going to teach. Model how they are pronounced when added to a word. Review the meaning of the prefixes and suffixes you introduce.
- Prepare a list of root words and give them to students.
- Model how to add the prefix or suffix to the root words to create a new word. Read the new word and state its meaning. For example, "The new word is unhappy. Un- means 'not' and happy means 'with joy,' so unhappy means 'not happy' or 'without joy."
- Repeat the tasks until students can add the target prefixes or suffixes to root words and decode and state their meaning with accuracy.
- Once students understand the concept, create a more game-like situation to practice reading words with word parts.

MEASURING PROGRESS

- Teacher observation
- Conferring
- Informal structural analysis assessment

RESEARCH

Bursuck, W. D., & Damer, M. (2011). Teaching reading to students who are at risk or have disabilities: A multi-tier approach (2nd Ed). Boston, MA: Pearson.

Vadasy, P. F., Sanders, E. A., & Peyton, J. A. (2006). Paraeducator-supplemented instruction in structural analysis with text reading practice for second and third graders at risk for reading problems. *Remedial and Special Education*, 27, 365-378.

Vaughn, S., & Linan-Thompson, S. (2004). *Research-based methods of reading instruction: Grades K-3.* Alexandria, VA: Association for Supervision and Curriculum Development.







TIPS FOR TEACHERS

AFFIXES & ROOTS



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SKILL OVERVIEW: Affixes and roots

The English language has been strongly influenced by other languages over the centuries, particularly by Latin and Greek. Understanding the structure of these two western classical languages affords many insights into the formation and meaning of English vocabulary words. Greek and Latin are inflecting languages in which words and usage are modified by the addition of prefixes and suffixes. Familiarity with prefix meaning, suffix usage, and the most common Latin roots can provide clues for figuring out tens of thousands of words.

Step 1 - Teach common prefixes and their meanings

Prefixes are placed at the beginning of words to change meaning. Learning approximately 20 high-utility prefixes can significantly enhance one's ability to analyze word meaning.

For example, the following prefixes all mean *not* or *opposite*:

dis - disappear, distraction, dismiss, dispute

im - immature, imperfect, improbable, impudent

in - inequity, ineffective, incredible, insecure, inaccessible

ir – irresponsible, irreverent, irregular, irresistible

un - unobstructed, unrealistic, unbeaten, uncivilized

Step 2 - Show how suffixes modify parts of speech

Suffixes added to the end of words affect usage rather than meaning. Most commonly, suffixes denote verb tense, noun plurals, or adjective degree. Understanding these uses improves grammar, but does not build vocabulary. However, recognizing how suffixes are utilized to modify parts of speech can be a worthwhile meaning-analysis strategy. Identifying the usage might help a reader to get the gist of what is being said.

The following show suffixes modifying parts of speech:

- -ant, -ent (verb to adjective) observe to observant, differ to different, defy to defiant
- -ty (adjective to noun) active to activity, safe to safety, cruel to cruelty
- -ion (verb to noun) collect to collection, act to action, appreciate to appreciation

Step 3 – Study the most frequently used Latin roots

Frequently occurring Latin roots and their variant forms are potent vocabulary builders. Just learning the top 25 would offer insight into innumerable English words. Some that are more straightforward, such as *port* or *scribe*, may be learned with little instruction. However, structured lessons would unlock many others and may be needed for some students.

The following are examples of the Latin root **mit, miss**, which means to send or let go. The word meanings in parentheses couple both the root and prefix meanings.

commit/commission (send together); transmit/transmission (send across);

admit/admission (let go toward); remit/remission/remittance/remiss (send back); intermission/intermittent (let go between); emit/emission/emissary (send out of)

READING MANIPULATIVES PRODUCTS: Suffixes, Prefixes & Latin Roots Match

inter	mission	When we went to the theater, there was an before the final act.			
un	fasten	Bob could not the boat from the dock because the knot was too sight.			
micro	biology	is the study of minute organisms that live on our planet.			
en	title	Often age willyou to more privileges than your younger siblings.			
pre	paid	The last month of his rent was so John had some extra cash.			

RM PRODUCTS: 340, 345 PREFIXES A & B MATCH

friend	ly	One reason that Mary usually gets invited to go places is that she is and thoughful.
nature	al	If we do not preserve our resources, future generations will not be able to enjoy them.
Suburb MOUN - ADECTIVE	an	A major change in cities in the 20th century was that people moved tocommunities.
moment	ary	Even a lapse of concentration when driving can lead to a terrible accident.
baby NOW - ADMOTIVE	ish	It is so to pour just because you did not get your way.

RM PRODUCT: 330 SUFFIXES MATCH

ad vert		Cigarette companies are not allowed to on television.		
re vert		Heto his old ways every time he was around his family.		
vert		She has attacks of dizziness, called, when she gets up too fast.		
tra versæ	ing KERS	Mountain goats are good atsteep hills.		
con vert		We get to put the rool down on our when the weather is nice.		

RM PRODUCT: 335 LATIN ROOTS MATCH

This holistic approach to studying affixes builds genuine understanding of the function of prefixes and suffixes.

In the 12 suffix sets, students learn that suffixes added to the end of root words change English words from one part of speech to another (words in each set follow the same pattern, such as verb to noun). Root word cards show spelling changes.

Prefixes carry meaning and are added before root words to change the meaning of the new word. Prefix meaning is noted under the prefix. Level B has suffixes added to root words (root noted).

Latin root sets have 5 roots each for 3 Latin words. The root and prefix meanings, as well as suffix part of speech, are noted on the cards. Using these is a superb way to build vocabulary.

For each of the 15 combinations in sets, there is a cloze sentence to tie usage and comprehension to the new words formed. Sentences often help students to figure out combinations.

SUFFIXES MATCH	Download PDF	\$10
PREFIXES A MATCH	Download PDF	\$10
PREFIXES B MATCH	Download PDF	\$10
LATIN ROOTS MATCH	Download PDF	\$12

INSTRUCTION: Build foundation with lessons

Latin root and affix meaning provide insights into the meaning of advanced vocabulary words. Due to the steps involved in analyzing meaning, work with these concepts before using manipulatives. The following is a sample word-study group:

vert, vers – Latin root meaning to turn advertise – verb, turn toward adversity – noun, turn against avert – verb, turn aside or from convertible – adjective, turn into divert – verb, turn away extrovert – noun, turn outward introvert – noun, turn within reverse – verb, turn back revert – verb, turn back subversive – adjective, turn under traverse – verb, turn across vertical – adjective, turn up vertigo – noun, turn around

Structural Analysis—Prefixes

List of common prefixes with their meanings.

PREFIXES					
Prefix	Meaning	Example(s)			
Ab-	away from	absent, normal			
Ad-	to, toward	advance, addition			
After-	later, behind	aftermath, afterward			
Anti-	against, opposed	antibiotic, antigravity			
Auto-	self	automobile, autobiography			
Be-	make	believe, belittle			
Bi-	two	bicycle, biceps			
Com, con, co-	with, together	commune, concrete			
Contra-	against	contradict, contrary			
De-	downward, undo	deflate, defect			
Deci-	ten	decibels, decimal			
Dis-	not	dislike, distrust			
E, ex-	out of, prior to	explain, expense			
En, em-	in, into, cover	engage, employ			
Extra-	outside	extravagant, extraterrestrial			
lm-	not	impose, imply			
ln-	into, not	include, incurable			
Infer-	among	interact, internal			
Macro-	large	macroeconomics, macrotiotic			
Magni-	great	magnify, magnificent			
Mega-	huge	megaphone, megabucks			
Micro-	small	microscope, microbe			
Mis-	wrongly	mistake, mislead			
Non-	not	nonsense, nonviolent			
Over-	above, beyond	overflow, overdue			
Post-	after	postdate, postmark			
Pre-	before, prior to	preheat, prehistoric			
Pro-	in favor of	protest, protect			
Re-	again	repeat, revise			
Sub-	under, beneath	submarine, subject			
Super-	above, beyond	superior, supernatural			
Tele-	far	telescope, telephone			
Trans-	across	transfer, transit			
Гri-	three	tricycle, triangle			
Jn-	not	unknown, unjust			
Ultra-	beyond	ultraviolet, ultrasuede			
Jnder-	beneath, below	underneath, underline			
v	one, single	unicorn, uniform			

Pinnell, G. A., Fountas, I. C. (1998). Word matters: Teaching phonics and spelling in the reading/writing classroom. Plymouth, NH: Heinemann.

Structural Analysis—Suffixes

List of common suffixes with their meanings.

SUFFIXES					
Suffix	Meaning	Example			
-ant	one who	assistant			
-ar	one who	liar			
-arium	place for	aquarium			
-ble	inclined to	gullible			
-en	one who	resident			
-er	one who	teacher			
-er	more	brighter			
-ery, ry	products	pottery			
-ess	one who (female)	actress			
-est	most	fastest			
-ful	full of	mouthful			
-ing	material	roofing			
-ing	(present tense)	smiling			
-less	without	motherless			
-ling	small	fledgling			
-ly	every	weekly			
-ly	adverb	happily			
-ness	state of being	happiness			
-ology	study of	biology			
-or	one who	doctor			
-ous	full of	wondrous			
-s, es	more than one	boxes			
-y	state of	sunny			

Pinnell, G. A., Fountas, I. C. (1998). Word matters: Teaching phonics and spelling in the reading/writing classroom. Plymouth, NH: Heinemann.

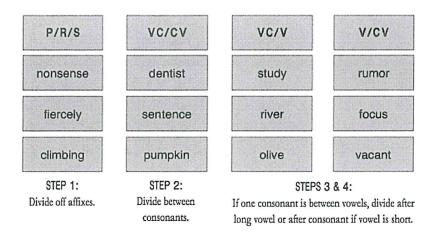
TIPS FOR TEACHERS

SYLLABICATION RULES



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READING MANIPULATIVES PRODUCT: Syllable Sorts



Students consider all syllabication rules as they break down two-syllable words.

Students sort 36 words in each set by 4 basic rules, applying them in order. This material provides abundant practice, thereby allowing students to see patterns and decode rapidly.

Once students have worked through the 12 sets, they are ready to apply steps to longer words. Improving syllabication consciousness is a valuable spelling aid.

SYLLABLE SORTS

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TEACHING STRATEGIES: Assure that students have prerequisite phonics skills

Students who need to use syllabication to decode words must be taught syllabication rules holistically. When they apply basic rules in steps, they begin to recognize patterns and break down unknown words. Initially, the rules are applied to two-syllable rules. Once students learn the patterns, the same rules are used to break down longer words.

Even those students who read words with ease in context generally improve spelling accuracy if they become more cognizant of word structure and syllabication patterns.

Students should possess certain prerequisite skills and concepts before being taught the syllabication rules. Frequently, it is necessary to review short and long vowels, as well as prefixes/root words/suffixes, before proceeding with syllabication. You will see why as you review the following foundation concepts.

- Each syllable must contain a sounded vowel. It can be a single vowel sound (i•de•a) or used with one or more consonant sounds (be•gin).
- There are two kinds of syllables: open and closed. A closed syllable ends with a consonant and the vowel is usually short (or a schwa). An open syllable ends with a vowel that is generally long (clo•ver, e•vent). The vowel may be a y pronounced as /e/ (fun•ny) or occasionally /i/ (my•self).
- Since the first rule deals with dividing between root words and affixes, students must be familiar with prefixes, suffixes, and root words.
- Digraphs, or two consonants that make a single sound (ch, sh, th, wh, ng, nk, ng, ck, ...), cannot be divided (buck•le, noth•ing, cash•ier, bush•el, fur•ther).
- In some cases, blends are not divided (seecret, miegrate, zeebra). Do not preteach since students discover this when identifying open vs. closed syllables.

MAKING MATERIALS: Syllable Sorts

- 1. Line off cover-weight sheets of paper (8.5 x 11 inches) into 10 horizontal strips (1.1").
- 2. Draw vertical lines at 4.25" (center), 2.125" (center left column), and 6.375" (center right column).
- 3. Use the accompanying syllabication resource list. Write the 4 rules at the tops of the columns
- 4. Write 9 words for each rule below it.
- 5. Sets must be coded in some way. This can be done with codes or color.
- 6. Laminate cards. Cut apart and place pieces in zipper bags or other storage devices.
- 7. Create a checklist to track the completed sets.

SYLLABICATION RULES — APPLY IN ORDER

P/R/S — Check the word for prefixes and suffixes. The first step is to divide between them and the root word. If necessary, affixes need to be reviewed with the students (farmer, readeing, misetake).

VC/CV — Check for multiple consonants together between vowels. Divide between the consonants (can dy, hap py, el bow).

If a word has one consonant between vowels, decide whether the first vowel is long or short.

V/CV — If the vowel is long, divide after the vowel leaving an open syllable (faevor, seaeson, stuepid).

VC/V — Otherwise, divide after the consonant leaving a closed syllable (hon-ey, plur-al, drag-on).

Students consider all of the rules as they sort the words. By the time they have completed several of the Syllable Sorts, they begin to see the patterns. Soon they have the strategies they need to break down unknown multisyllabic words.

SYLLABLE SORTS

Draw lines. Write the syllabication rules at the top of each column. Then write 9 words that follow each rule below it (RM product 310).

P/R/S	VC/CV	V/CV	VC/V	
asking	allow	clover	camel	
beside	center	eager	closet	
brighter	clumsy	haven	finish	
lovely	grammar	ladle	honey	
prepaid	hello	major	modern	
restless	humble .	photo	robin	
sliding	signal	rumor	shovel	
tallest	silly	season	vision	
unkind	suggest	tiny	widow	

SYLLABICATION – LONGER WORDS

The same rules are applied to divide words of 3 or more syllables (RM product 320). In the sample below, division lines have been inserted.

SYLLABICATION - LONGER WORDS Download PDF \$7

Prefix/Root/Suffix 1. Remove affixes.	VC/CV 2. Look for multiple consonants in middle. First syllable is closed.	for multiple Closed syllable (strants in middle.			
in dus try	pa tr	i ot ic	ex	pla na tion	
com pu te	ab so	ab sorb ing		com mun i cate	
cul ti vat e	d gra ci	gra cious ly		ac ci den tal	
dis ap pear a	nce sup pl	sup ple ment		ap pro pri ate	
un con di tio	n al con sti	ruc tion	t	riv i al	
gen er a tio	on ben e	ben e fi cial		hy dro gen	
sup er vi s	or cellelt	cel e bration		por ta tion	
con ser va t	on un sus	un sus pect ing		ar tise ment	
es tab lish	ac cep	t a ble	per	son al i ty	
re place me	nt stim u	la tion	de	mollish	

P/R/S		VC/CV		VC/V		V/CV	
Identify and	remove affixes		en consonants	First syllable	closed (short)	First syllable	open (long)
act•or	loud•er	af•ter	hel·lo	at•om	mon•ey	ba•by	mo•tor
art•ist	luck•y	ap•ple	hel·met	bod•y	nick•el	ba·con	mu•sic
ask•ing	mis•spell	ar•row	hur•ry	both•er	nov•el	ba•gel	na•tion
bash•ful	mis•take	ath•lete	kit•ten	buck-et	ol·ive	ba•sic	no•tion
be•side	morn•ing	bal·loon	lad•der	cab•in	pan•ic	be•gin	o•bey
big•ger	nois•y	bas•ket	let•ter	cam·el	ped•al	be•hind	o•dor
blind.ness	non•sense	ber•ry	let•tuce	chap•el	pet•al	ca•ble	o•pen
bold•ly	pack•age	blis•ter	lob•ster	chis•el	pit•y	ce•dar	o•val
book•let	pain·less	bot•tle	lum•ber	cit•y	piv•ot	ce•ment	pa·per
boss•y	part·ly	bun•ny	mat•tress	civ•il	plan•et	cli•mate	pho•to
breath•less	pay·ment	but•ter	mon•key	clev•er	preseent	clo•ver	pi•lot
bump•y	peace ful	but-ton	mon•ster	clin•ic	prof•it	co•coa	po•ny
care·ful	plant•ed	cab·bage	nap•kin	clos•et	prop•er	cra•dle	pre-tend
climb•ing	play•ful	can•dle	of•fice	col·umn	pun•ish	de•cay	pri•vate
clos•est	pre•view	can•dy	pat·tern	com•et	quiv•er	de·mand	pu•pil
cloud•less	quick•ly	car•rot	pen•cil	cop•y	rad•ish	de•stroy	ra•dar
com•ing	rain•y	cat+tle	pen•ny	cred•it	rap•id	di•gest	ra·zor
count less	real•ly	chan•nel	pic•nic	crit•ic	reb•el	do•nate	rea·son
cream•y	re•fill	cir•cle	pic•ture	dev•il	rel·ic	do•nor	re•cess
cry•ing	re•pay	cof•fee	pis•tol	dig•it	rel•ish	du•ty	re•gard
dark•ness	rest·ful	com·mon	plas•tic	drag•on	rig•id	ea•ger	re•sist
dear-est	sad•ly	com•pete	plen•ty	fin•ish	riv•er	ea•sel	ri•val
deep•er	salt•y	con•test	prob·lem	for est	rob•in	e•qual	ro•bot
dis•cover	sleep•y	con•tract	pup•py	frag•ile	sal·ad	e•ven	ro•tate
dream•ing	slow•est	cot-ton	pump•kin	grav•el	sav•age	e•vil	ru•mor
drop•per	small•er	coun•cil	pur•ple	hab•it	schol•ar	fe•ver	se•cret
drown•ing	soft·ly	cur•rent	rab•bit	hon•ey	sev•en	fi•nal	si•lent
end•less	sog•gy	cus-tom	rib•bon	hon•or	sher•iff	fla•vor	si•ren
ex•port	stop•ping	den•tist	scis·sors	im•age	shiv•er	fo•cus	so•da
farm·er	sub•way	diz•zy	sen•tence	lem•on	shov•el	glo•bal	so•lo
fear•ful	sweet•er	el•bow	sig•nal	lev•el	shriv•el	gro•cer	spi•der
fore-cast	tall•est	en•joy	sil•ly	lil•y	stud•y	he•ro	stu•pid
fool•ish	thank•ful	fan•cy	sis•ter	lim•it	tim∙id	ho•tel	su•per
friend•ly	think•ing	fif•teen	soc•cer	lin•en	top•ic	ho•ly	ta•ble
fur•ry	thirst•y	fil•ter	sub•ject	liz•ard	trag•ic	hu·mor	ti•dy
grace•ful	thought•ful	fol·low	sum•mer	log•ic	trav•el	i•dle	ti•ger
hand•y	throw•ing	for•bid	tar•get	mag•ic	trop•ic	i•tem	to•tal
hard•en	tract•or	for•get	thun•der	man•age	ven•om	la•bel	tu•na
hill•y	treat·ment	fran•tic	tur•key	med•al	vig·or	la•dy	u•nite
hot•ter	un•fair	fun•ny	whis•per	men·u	vis•it	le•gal	va•cant
im•prove	vast•ly	gen•tle	win•dow	met•al	viv•id	lo•cate	va•por
itch•y	want•ed	gos•sip	win•ter	mim•ic	vol•ume	ma•jor	vi•rus
joy•ous	warm·est	ham•ster	wis•dom	min•ute	wag•on	mi•nus	wa•ger
love•ly	wind•y	hap•pen	won•der	mod•ern	wid•ow	mo•ment	ze•ro