Welcome to a Guided Tour of WordSpring™ John Anton

This guide describes Lexia Institute's WordSpring software through a series of screen displays that represent how a teacher might use it. While the tour is brief, we hope it contains enough detail to help you determine whether WordSpring meets your teaching needs.

WordSpring is a comprehensive word list resource for teaching decoding, spelling, fluency, and vocabulary. Teachers will find benefits from WordSpring, regardless of teaching methodology and curriculum. Word lists can be quickly created, arranged, and modified with just a few simple key strokes. The comprehensiveness of the lists makes them useful for students of all ages and skill levels. The flexibility of the program leaves usage discretion to the individuality and creativity of the user.

Although WordSpring contains a large amount of information, the interface to it requires knowledge of only a few operations to reach the level of an expert user. People who have stopped by our booth at the International Dyslexia Association exhibitions demonstrate impressive facility after only a few minutes of observing.¹ One of our great satisfactions is to yield the "demo seat" to a new user who then invites her colleagues over to show them the program herself. After reading this document, you might also call over a colleague to give them a virtual demo. Better yet, we hope you will order a copy of WordSpring for yourself and give live demos.

¹ Gail Venable, one of our users, writes: "I decided to start out by not consulting the manual and seeing how intuitive the program was. And the answer is, of course, that it's very simple and intuitive to use for getting to the lists and selecting the words (love that 10% feature!).

Your first view

When you open the WordSpring application, the panel in Fig. 1 below appears.² You may be pleased to read that essentially all the program's features are contained in this panel. So once we deal with each screen element, you will have a good understanding of the whole program.

The first thing to notice is the list of items in the Categories window. WordSpring's comprehensive word lists are organized into 24 word-pattern categories for teaching decoding, spelling, fluency, and vocabulary. The categories begin with one-syllable short words in a closed syllable and expand in complexity to include multi-syllable words requiring syllabification and accenting. The comprehensiveness of the lists makes them useful for students of all ages and skill levels. Before examining the rest of the panel, let us look more deeply at the categories to gain a sense of WordSpring's scope.



Fig. 1. Opening Screen

² This and other screenshots in this document were made on an Apple Macintosh®. The program version for Microsoft Windows® is similar.

The subcategories

WordSpring categories contain over 430 subcategories, each tied to its parent category. (see Appendix A). Both categories and subcategories offer definitions, teaching tips, and other notes supporting literary instruction. Below in Fig. 2 we have expanded the *r*-controlled phonogram category. Notice the list of subcategories, delineated by a



Fig. 2. r-controlled phonograms category

grapheme/phoneme pairing. Some teachers find just the collection and organization of such subcategory lists to be helpful.

In the following Fig. 3, the "ar" sounded as $\exists r$ (schwa-r) is selected. The keyword "dollar" is presented, along with the observation that this case often applies when the "ar" follows the letter "l", and a teaching tip suggesting that this subcategory be taught after the easier words like "star" but before harder words like "carry".

When you select a subcategory, WordSpring automatically presents a list of examples for that selection in the Examples window. The number of examples displayed is the minimum of the number available in the database and the user selected display limit. In some cases, a list may have thousands of entries. To keep lists manageable, a user can opt to limit the number displayed, say to 100, as below. When there are more words available than the display limit, WordSpring will display a random sample of them. Each click of the subcategory brings up another random sample.



Fig. 3. "ar" as schwa-r

Expanding the Categories

The Categories in WordSpring have subcategories. You can expose each set of subcategories simply by clicking on the arrow indicator alongside the category you want to examine. For example, Fig. 4 shows the first few dozen subcategories for phonograms. There are currently 44 subcategories for phonograms. Where a grapheme has several pronunciations, each of the pronunciations is shown, as the case for "ea" in Fig. 4.



Fig. 4. (partial) phonograms list

Bringing up Examples

We could scroll down to see the entries lower in the phonograms list. For now, however, let us select "ea" with the pronunciation /ĕ/ (short-e) and look at words of 1 or 2 syllables. Clicking on that item brings up the following screen:

000 W	WordSpring					
WordSpring™ © Lexia Institute 2002-2004						
Categories		Examples	100/152	User Selections (0)		
▶ single syllable words	0	head	0			
		heather	6			
closed syllable (short vowel)	- 11	breath				
di/trigraphs and ligatures	- 111	thread				
▶ v-e ve syll's (long vowels)	- 111	stealth				
▼ phonograms		wealth				
ai	- 111	nealth		10%		
ain	- 111	sweat		**		
ay	- 111	aread				
al	- 111	meant				
au	- 111	realm		*		
aw	- 111	death				
e	U	spread				
ee (T)		breadth				
ea /e/		neavy				
ea /a/	-87	ready				
ea /e/		weapon				
el /a/		neaven				
ei /1/		pleasant				
el /e/		measure				
eign		deathly				
et (-)		measured				
eu /u/		bread				
eu /00/		forenead				
ew /u/		dead				
ew /00/		dealt				
ey /a/		deadweight				
ey /e/		screwnead				
1e /1/		pleasure				
le /e/		breastbone				
ign	4	deadwood				
oa	Ŧ	breadfruit				
keword: head	-	Ligarnits		27 J		
/hĕd/						
/ 1100/		Display 1 or 2 syllables	\$	Add word:		
tips: The phonogram or yowel team, ea is		Dictionary Wo	ords	Sort List Alphabetically		
pronounced /e/ (head, weather) with equal frequency		Nonsense Wo	ords			
as /e/ (eat): ea pronounced /a/ (break) is the		Cast Jugarated				
least frequent. See ea - steak - /a/.		unsorted	•			
rease arequests, see en secure /u/.	Ŧ	Maximum words 100	2	Quit		
			2			

Fig. 5. A long list is truncated.

The important points to note in Fig. 5 above are:

- A list of words has appeared in the window named Examples. Above the list you can see that a randomly selected 100 words out of a possible 152 have been displayed.³ Each of the words contains the phonogram "ea" with the desired phoneme.
- Below the list you see the default display settings, namely, 1 or 2 syllables, dictionary words, unsorted. You can also see where you can change the default for the maximum number of displayed words.
- Below the Categories window you can find information helpful for teaching "ea" sounded as /ĺe/.

³ There are currently 181 "ea" as /ĕ/ words in the database, of which 152 are 1- or 2- syllable words. Only 100 of the 1- or 2-syllable words are displayed, according to the user's selection for "Maximum words".

Fig. 6 shows the result first of closing the phonogram category, then opening the category for closed syllables (short vowels), and selecting "e". The user choice below the Examples window has been set for "cvc". This results in a sorting of the 100 displayed words (of 143 for "e" as /ĕ/) in "c-v-c" order.⁴



Fig. 6. Short e words in c-v-c order

⁴ c-v-c stands for "consonant-vowel-consonant". The specific c-v-c order in WordSpring is: cvc, cvcc, ccvcc, ccvcc, cccvcc, cccvcc, cccvcc.

Making Selections

Let us start here to create some selections for our lesson. Fig. 7 below shows the 8 words picked for our User Selections window.⁵ Words put in the User Selections window can be printed or saved for use in our lesson. Notice also that below the User Selections window is the pronunciation for the word selected above. This feature is also available for the Examples window.



Fig. 7. Selecting words from the list of examples is very easy

Each of the 8 selected words shown in User Selections was easily moved from the Examples window to Selections simply by double-clicking it. Alternatively you could choose to use the button arrows, or even hold down the mouse button and drag the word to where you want it. Aside from the 10% button⁶ the buttons more likely to be used are the

⁵ After each selection, the word count in the remaining Examples list is reduced.

⁶ When Gail Venable writes: "I love that 10% feature.", she is referring to the 10% button. Pressing that automatically moves 10% of the Examples into the User Selections window.

two red ones; they remove one or all words, respectively, from the Selections window. (Yes, removed words go back into the Examples window if that was their_source.) In the Selections window you can choose to drag a word up or down to reorder the selected words or check the box to sort words alphabetically. Also you can type directly into Add Word or drag a word from Examples or Selections to the Add Word box, e.g., to add a suffix. Hit "tab" to add it to Selections, and drag to your desired location. In fact, you can drag a word to the Add Word box from Examples or Selections, modify it there, and move the result to the Selections list.

To reach Fig. 8 below, first we removed all user selections, and then changed the user preferences to show nonsense words for short-e. We next selected "fep". WordSpring 2.0 has over 2500 nonsense words for the following Categories: single syllable, short vowel, and long vowel words.



Fig. 8 WordSpring has nonsense words too

Printing your lists

Now let us move on to printing our lists. In short-e we selected a long list of words by clicking the 10% button 6 times. A few words were removed and "checkroom" was highlighted to reach the result illustrated in Fig. 9 below.



Fig. 9. Printing a long list

When we pull down the Printing menu and select "lists", the program presents the options shown in Fig. 10 below. These *built in* options are provided for your convenience. The first three offer varying font sizes for a 2 column presentation of the word and its pronunciation. The next 6 are for the words alone, in one column (middle three) or two column (last three) presentations.



Fig. 10. Pre-defined printing formats for user convenience

Choose the option that displays the words only, in Std (standard) size font, in a two column presentation. Fig. 11 shows the results in Print Preview mode for the 40 words selected.⁷

⁷ The resolution in some Print Preview packages might not reflect the quality of the actual print output. We just use Print Preview here for our presentation.

propel	detect	ſ
checkroom	intend	
profess	contend	
pest	bell	
red	reject	
eddy	rebelled	
ethnic	wreck	
quelled	echo	
retell	sense	
medley	stencil	
lesson	shed	
ketch	lecture	
sentry	paycheck	
append	denim	
sent	roadbed	
gentlest	transcend	
quintet	quench	
express	gem	
connend	mention	
debt	embrace	
-		

Fig. 11. "Print Preview" for the selected words.

Had we chosen instead to see the pronunciations in the printout, the following Fig. 12 would be produced for Lge (large) sizes As we mentioned previously, the built in print options are for your convenience. It is possible to have a wider range of printing options (font type, font size, font style, page organization, color, etc.) by using your own word processing application. You achieve this by saving a selection to a file (under the File menu) and then opening that file in your own word processor (Fig. 13).⁸

000	9	🖹 Previe	w of "Use	er_Selection"	.pdf (3 Pag	ges)		0
		1	1	I	•		(+ A	
Drawer	Back/Forward	Page (of 3)	Page Up	Page Down	200m In	Zoom Out	i lool Mod	e
	propel			prə/pĕ	él'/			
	checkroo	m		chĕk′/	rōom/			
	profess			prə/fĕ	és'/			
	pest			pĕst/				
	red			rĕd/				
	eddy			ĕd'/ē/	<i>'</i>			
	ethnic			ĕth'/r	nĭk∕			
	quelled			kwĕld/	(
	retell			rē/tĕ]	. 1			
	medley			mĕd′/]	ē/			
	lesson			lĕs'/a	en/			
	ketch			kĕch/				
	sentry			sĕn′/t	rē/			
	append			ə/pěnc	a'/			
	sent			sĕnt/				
	gentlest			jĕnt'/	'ləst/			
	quintet			kwin/t	čět′/			
	express			əks/pr	čěs′/			
	commend			kə/mĕr	nd′/			
🗹 Sot	ft Proof					Can	cel Pr	int

Fig. 12. Large print with pronunciations.

⁸ WordSpring comes with the LPCourier font, which should be used when pronunciations are displayed.

propela	escort
checkroom	detecta
professa	intend∝
pesta	contend
reda	bellg
eddy	rejecta
ethnic	rebelledg
quelled	wreck
retella	echo
medleya	sense
lessona	stencil
ketch _¶	shed
sentry	lecture
appenda	paychecka
senta	denima
gentlest	roadbed
quintet	transcenda
expressa	quencha
commend	gem∉
debt _a	mentiong

embrace invent

Fig. 13. Sample list printing format from a word processor

Using WordSpring

WordSpring was designed to help teachers generate word lists. But the program's lists are constrained only by database contents, so there is ample room for creativity in its use. Understandably, we expected teachers to use the program as an adjunct to texts such as Scope and Sequence for Literacy Instruction, by Carol Murray⁹. This popular book has a wealth of ideas from the experience of a Master Teacher. But we have been gratified to learn of other ideas that never occurred to us. One teacher leaves the program running in the classroom for students to find their own lists. Another teacher shows a list of words and challenges students to identify the subcategory from which they were selected. What other ways could you use WordSpring?

Quo vadis, WordSpring?

We plan to continue to improve WordSpring. Under consideration are new categories and subcategories, additional dictionary and nonsense words, additional and expanded teaching tips, new printing and presentation aids, etc. Comments from our users help us to determine what is needed and in what priority.

Summary: WordSpring enables you to:

- create, arrange and modify lists with just a few simple key strokes
- select words with common characteristics, such as di/ trigraphs, phonograms, affixes, Latin roots, number of syllables, homonyms, and confusable word pairs
- pick words with several pronunciations, e.g. words with ea pronounced as short e, long e, or long a
- illustrate over two dozen spelling rules and generalizations, such as: double f, l, s, z generalization, extended 1-1-1 rule
- · choose words to demonstrate the four syllabification rules, with corresponding syllable patterns
- arrange lists in random, consonant-vowel-consonant (c-v-c), or alphabetic order
- individualize lists to meet students' specific needs
- customize lists, build on previous lists, and share lists with other teachers via e-mail, network, or disk
- find pronunciations compatible with Orton-Gillingham based approaches for all 15,000 dictionary and 2,500 nonsense words
- expand your teaching knowledge with explanatory notes, teaching tips, definitions, and examples for each category

Conclusion

WordSpring is an easy-to-learn tool for teachers who care about words and language, who want to share that love with their students and with other teachers, and who realize that a systematic presentation approach as enabled with WordSpring can greatly increase their success in doing so.¹⁰

⁹ pro-ed Inc, <u>http://www.proedinc.com/store/index.php?mode=product_detail&id=12050</u>

¹⁰ "WordSpring is a wonderful teaching aid for teachers of phonics and word study. The ability quickly to create word study lists with simple to advanced letter patterns and word parts is essential. *WordSpring* is the best tool I have seen for this." Joan Sedita, Lead Trainer, Massachusetts Reading First Program, MA

Appendix

Categories and Subcategories

Category	Subcategory	Keyword(s)		ay	pl[ay]
single		cash, flv,		al	[al]most
svllable		fame, void,		ลม	[aulthor
words		start, string		aw	s[aw]
closed	a	[a]pple		á	souffliél
svllable		[-]FF		2	fleelt
(short vowel)				03	
(2	e	[ellephant		ea	
	i	[i]nch		ea	stledjk
	-			ea	nleaja
				el	v[ei]n
	u			ei	[Ei]nstein
	У Эл	m[y]th		ei	c[ei]ling
di/trigraphs	bt	de[bt]		eigh	sl[eigh]
& ligatures				et	val[et]
	ce	o[ce]an		eu	f[eu]d
	ch	[ch]air		eu	n[eu]tral
	ch	[Ch]ristmas		ew	f[ew]
	ch	[Ch]icago		ew	fl[ew]
	ci	so[ci]al		ey	th[ey]
	ck	ja[ck]		ey	k[ey]
	dge	bri[dge]		ie	p[ie]
	du	e[du]cate		ie	ch[ie]f
	gh	[gh]ost		iah	n[igh]t
	qh	lau[gh]		03	h[191]t
	dw	paradi[gm]		00	
	an	si[an]		00	
	ane	fati[que]		00	m[oo]n
	kn	[knlife		00	bloolk
	mb			00	b[00]1d
	mp			oi	[oi]1
	1011 DD			оу	b[oy]
	pii			ou	[ou]ch
	pn	[pn]eumonia		ou	s[ou]p
	ps	[ps]ychology		ou	d[ou]ble
	qu	[qu]een		OW	sn[ow]
	qu	[qu]iche		OW	C[OW]
	que	uni[que]		ue	val[ue]
	rh	[rh]ubarb		ue	tr[ue]
	SC	[sc]ience		ui	fr[ui]t
	sch	[sch]wa		augh	c[augh]t
	sh	[sh]ip		ough	th[ough]
	si	controver[si]al		ough	dr[ough]t
	si	vi[si]on		ough	f[ough]t
	su	[su]gar	r-controlled	ar	st[ar]
	su	u[su]al		ar	doll[ar]
	tch	ma[tch]		ar	c[ar]ry
	th	[th]imble		er	h[er]
	th	[th]is		er	ch[er]rv
	ti	spa[ti]al		or	bard[or]
	ti	gues[ti]on		ir	htirld
	tu	mu[tu]al		11 in	
	wh	[whlee]		тт: тт:	
	wr	[wr]ench		01.	c[or]n
	vi	an[xi]ous		OL.	
<u>w-o wo</u>	2.0			ur	b[ur]n
ve vee	u-e	5[d-1-e]		yr	m[yr]tle
vowels)				ear	[ear]n
	<u> </u>	th[e_ s _e]		our	n[our]ish
	e		special	soft c (ce)	[ce]nt
	т-е	p[1- n -e]	letters		
	0-е	nlo-m-ej		soft c (ci)	[ci]ty
	u-e	m[u−⊥−e]		soft c (cy)	fan[cy]
	u-e	fl[u- t -e]		soft g (ge)	[ge]ntle
-	у-е	t[y- p -e]		soft g (gi)	[gi]nger
phonograms	ai	r[ai]n		soft g (qy)	[gy]psy
	ain	mount[ain]	L	5 (52)	

	exceptions to	[g]et, [g]irl,		ent	resid[ent]
	soft g	bug[g]y		ency	tend[ency]
	hard c	[c]ake		eous	gas[eous]
	hard g	[g]oat		er	hard[er]
	i	mill[i]on		ery	slav[ery]
	i	man[i]ac		es	wish[es]
	0	m[o]ther		est	smart[est]
	S	[s]un		ety	pi[ety]
	S	ro[s]e		ful	wish[ful]
	u	s[u]ave		fy	beauti[fy]
	u	f[u]II		hood	neighbor[hood]
	X	DO[X]		la	dyslex[1a]
	x	e[X]1St		lal	men[1al]
	x			10	Class[1C]
	2			ine	erm[Ine]
	qua			ine	follinol
	quar	[quar]t		ing	play[ing]
	wa	[waltch		io	presidio
	war	[war]m		ious	imperv[ious]
	wor	[worlld		ish	squeam[ish]
letter	ang	s[ang]		ism	elit[ism]
combinations				ist	elit[ist]
	eng	l[eng]th		ite	ign[ite]
	ing	s[ing]		ite	favor[ite]
	ong	s[ong]		ity	pur[ity]
	ung	s[ung]		ium	prem[ium]
	ank	s[ank]		ive	rest[ive]
	ink	s[ink]		ive	rev[ive]
	onk	h[onk]		less	help[less]
	unk	s[unk]		let	book[let]
	tion	na[tion]		ling	weak[ling]
	tion	ques[tion]		ly	fair[ly]
	sion	mis[sion]		ment	monu[ment]
	sion	vi[sion]		ness	good[ness]
	ture	pic[ture]		oid	spher[oid]
	qua	[qua]d		or	project[or]
	quar	[quar]t		ory	curs[ory]
	wa	[wa]tch		ous	bulb[ous]
	war	[war]m		ship	friend[ship]
euffiyee t	able	[wor]iu cap[ab]e]		sion	Vi[sion]
endings	abre	cap[able]		SION	
chuingb	ible	sens[ib]e]		some	
	age	sabot[age]		tial	par[tial]
	age	p[age]		tian	mar[tian]
	age	garb[age]		tient	quo[tient]
	ain	mount[ain]		tience	pa[tience]
	al	pivot[al]		tion	na[tion]
	ance	hesit[ance]		tion	ques[tion]
	ant	hesit[ant]		tious	cau[tious]
	ancy	hesit[ancy]		tude	atti[tude]
	ar	sol[ar]		ture	pic[ture]
	ard	wiz[ard]		uous	virt[uous]
	ary	custom[ary]		ward	on[ward]
	ate	temper[ate]		У	fish[y]
	ate	chlorin[ate]	consonant -le	ble	bub[ble]
	cial	so[cial]	syllables	-	
	cian	physi[cian]		cle	bicy[cle]
	cience	cons[clence]		dle	grid[dle]
	cient	forolgious		tle	wat[tle]
	od	rero[crous]		gie	bu[gle]
	ed	jump[ed]		KT6	pic[Kie]
	ed	rent[ed]		pre	par[pie]
				ste	nds[sie]
	el	nav[e]]		+10	Dit[Stre]
	en	wood[en]			fiz[z]e]
	ence	omnipot[ence]	vowel at end	a	b[a]by
		I I J		~	~[~]~]

				consonant-v +	trying, flying,
(2	al aldot		an i suffix	crying, rrying,
	a -				•••
	e	m[e]ter		consonant-y	snyly, dryly,
	e	s[e]dan		exceptions	
	i	t[i]ger		vowel-y	paid, daily,
	i	T[i]bet		exceptions	
	0	p[o]ny	spelling	add es after	boxes, wishes,
	0	p[0]lite	generalizatio	s,x,z,ch,sh	
	u	m[u]sic	ns		
	11	l[u]nar		double f,l,s,z	puff, cuss,
	11	s[u]perb		double f,1,s,z	if, pus, gal,
	u 			exceptions	guiz,
	У	clàlcie		se ending	house, cheese,
	У	cand[y]		ce ending	chance, whence,
sight words	elementary	has, my, this,		ee enaring	chance, whenee,
	intermediate	much, such, why,		ak onding	dualt inalt
		•••			
	advanced	city, Indian,		k ending	ask, elk,
		music,		c ending	music, graphic,
	basic lists	such, rich, which,			•••
	plus			tch ending	match, batch,
homophones	elementary	air, heir		ch ending	ouch, bunch,
-	intermediate	ate, eight		dge ending	bridge, budge,
	advanced	all, awl		ge ending	serge, merge,
confugables	elementary	angle angel	forming	add -s	fin[] fin[s]
CONTRADIES	intormodiato	angre, anger	plurals		
	Incermediace	ardor, adore	2	add -es	chur[ch]
	advanced	Anglo, Angelo			chur[ches]
word families	al	[al]though		add —es after	fl[v] fl[ies]
	all	b[all]			II[Y] II[IES]
	alk	t[alk]		cons- y	modified modified
	ol	r[ol]l		add —s alter	
	old	c[old]		vower-o	
	ild	w[ild]		add -s after	her[o] her[oes]
	ost	h[ost]		consonant-o	
	ind	k[ind]		add —s, -ves	wi[fe] wi[ves]
	ign	s[ign]		after f,fe	
compound	gompound words	bonohoad ovorgoat		irregular	ox[] ox[en]
compound	compound words	bollellead, overcoat		plurals	
words	,	1 (1.2)	prefixes &	astro-	[astro]logy
containing	D	dou[b]t	Greek forms		
silent				dis-	[dis]agree
silent letters				dis- ex-	[dis]agree [ex]it
silent letters	с	s[c]ience		dis- ex- gram-, graph-	[dis]agree [ex]it tele[gram]
silent letters	c g	s[c]ience si[g]n		dis- ex- gram-, graph-	[dis]agree [ex]it tele[gram] [hyperlactive
silent letters	c g h	s[c]ience si[g]n [h]our		dis- ex- gram-, graph- hyper- hypo-	[dis]agree [ex]it tele[gram] [hyper]active [hype]dermic
silent letters	c g h k	<pre>s[c]ience si[g]n [h]our [k]now</pre>		dis- ex- gram-, graph- hyper- hypo-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic
silent letters	c g h k 1	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k</pre>		dis- ex- gram-, graph- hyper- hypo- in-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side
silent letters	c g h k 1 n	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n]</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere
silent letters	c g h k 1 n	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic
silent letters	c g h k 1 n p s	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave
silent letters	c g h k 1 n p s t	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable
silent letters	c g h k 1 n p s t t	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[uli]d</pre>		dis- ex- gram-, graph- hypo- in- inter- macro- micro- non- over-	[dis]agree [ex]it tele[gram] [hype]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due
silent letters	c g h k 1 n p s t t u	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er</pre>		dis- ex- gram-, graph- hypo- in- inter- macro- micro- non- over- phono-	[dis]agree [ex]it tele[gram] [hype]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph
silent letters	c g h k 1 n p s t u w	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er</pre>		dis- ex- gram-, graph- hypo- in- inter- macro- micro- non- over- phono- photo-	[dis]agree [ex]it tele[gram] [hype]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph
silent letters	c g h k 1 n p s t u w 1-1-1 or	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun,</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [post]script
silent letters	c g h k l n p s t u w l-1-1 or doubling rule	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun,</pre>		dis- ex- gram-, graph- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [post]script [pre]fix
silent letters	c g h k 1 n p s t u w 1-1-1 or doubling rule not 1-1-1	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp,</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [post]script [pre]fix [relject
silent letters	c g h k 1 n p s t t u w 1-1-1 or doubling rule not 1-1-1 extended 1-1-1	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep,</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self-	[dis]agree [ex]it tele[gram] [hype]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [post]script [pre]fix [re]ject [self]ish
<pre>silent letters</pre>	c g h k 1 n p s s t t u w 1-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, </pre>		dis- ex- gram-, graph- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- somi	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [post]script [pre]fix [re]ject [self]ish
silent letters	c g h k 1 n p s s t t u w 1-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule silent-e or	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle,</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private
<pre>silent letters</pre>	c g h k l n p s t t u w l-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule silent-e or dropping rule	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle,</pre>		dis- ex- gram-, graph- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge
<pre>silent letters</pre>	c g h k l n p s t t u w l-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule silent-e or dropping rule silent e +	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake,</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human
silent letters	c g h k l n p s t u w l-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule silent-e or dropping rule silent e + consonant	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake,</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sup- super- tele-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone
silent letters	c g h k l n p s t u w l-l-l or doubling rule not l-l-1 rule silent-e or dropping rule silent e + consonant suffix	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake,</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone [trans]fer
silent letters	c g h k l n p s s t t u w l-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule silent-e or dropping rule silent e + consonant suffix -ce,-ge (suffix	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake,</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans- un-	<pre>[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone [trans]fer [un]kind</pre>
<pre>silent letters</pre>	c g h k l n p s t u w l-l-l or doubling rule not l-l-l extended l-l-l rule silent-e or dropping rule silent e + consonant suffix -ce,-ge (suffix ace,-u-)	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake, noticeable, manageable</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans- un- under-	<pre>[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone [trans]fer [un]kind [under]neath</pre>
<pre>silent letters </pre>	c g h k l n p s t u w l-l-l or doubling rule not l-l-l extended l-l-l rule silent-e or dropping rule silent e + consonant suffix -ce,-ge (suffix a-,o-,u-) rce,-ge (suffix)	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake, noticeable, manageable, forger_larger</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans- un- under- bl-	<pre>[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone [trans]fer [un]kind [under]neath [bl]ast</pre>
<pre>silent letters</pre>	c g h k l n p s t u w l-1-1 or doubling rule not l-1-1 extended 1-1-1 rule silent-e or dropping rule silent e + consonant suffix -ce,-ge (suffix a-,o-,u-) -ce,-ge (suffix	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake, noticeable, manageable, forcer, larger,</pre>	Consonant blends	dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans- un- under- bl-	[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone [trans]fer [un]kind [under]neath [b]]ast
<pre>silent letters</pre>	c g h k l n p s t u w l-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule silent-e or dropping rule silent e + consonant suffix -ce,-ge (suffix a-,o-,u-) -ce,-ge (suffix e-,i-,y-)	<pre>s[c]ience si[g]n [h]our [k]now yo[1]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake, noticeable, manageable, forcer, larger, </pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans- un- under- bl-	<pre>[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone [trans]fer [un]kind [under]neath [b]]ast</pre>
<pre>silent letters</pre>	c g h k l n p s t u w l-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule silent-e or dropping rule silent e + consonant suffix -ce,-ge (suffix a-,o-,u-) -ce,-ge (suffix e-,i-,Y-) silent e	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake, noticeable, manageable, forcer, larger, truly, duly,</pre>		dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans- un- under- bl- br- cl-	<pre>[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone [trans]fer [un]kind [under]neath [bl]ast [cllin</pre>
silent letters	c g h k l n p s t u w l-l-1 or doubling rule not l-l-1 extended l-l-1 rule silent-e or dropping rule silent e + consonant suffix -ce,-ge (suffix a-,o-,u-) -ce,-ge (suffix e-,i-,y-) silent e exceptions	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake, noticeable, manageable, forcer, larger, truly, duly,</pre>	Consonant blends	dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans- un- under- bl- cl-	<pre>[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone [trans]fer [un]kind [under]neath [b1]ast [c1]ip [arbet]</pre>
silent letters	c g h k l n p s t t u w 1-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule silent-e or dropping rule silent e + consonant suffix -ce,-ge (suffix a-,o-,u-) -ce,-ge (suffix e-,i-,y-) silent e exceptions consonant-y or	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake, forcer, larger, truly, duly, baby, city,</pre>	Consonant blends	dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans- un- under- bl- br- cl- cr-	<pre>[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [sub]merge [super]human [tele]phone [trans]fer [un]kind [under]neath [bl]ast [cr]est [dr]and [cl]ip [cr]est</pre>
<pre>silent letters </pre>	c g h k l n p s t t u w 1-1-1 or doubling rule not 1-1-1 extended 1-1-1 rule silent-e or dropping rule silent e + consonant suffix -ce,-ge (suffix a-,o-,u-) -ce,-ge (suffix e-,i-,y-) silent e exceptions consonant-y or change y to i	<pre>s[c]ience si[g]n [h]our [k]now yo[l]k autum[n] cu[p]board i[s]land mois[t]en b[u]ild ans[w]er jam, pig, sun, ouch, gasp, forget, misstep, hope, cycle, apple, cake, noticeable, manageable, forcer, larger, truly, duly,</pre>	consonant blends	dis- ex- gram-, graph- hyper- hypo- in- inter- macro- micro- non- over- phono- photo- post- pre- re- self- semi- sub- super- tele- trans- un- under- bl- br- cl- cr- dr-	<pre>[dis]agree [ex]it tele[gram] [hyper]active [hypo]dermic [in]side [inter]fere [macro]biotic [micro]wave [non]taxable [over]due [phono]graph [photo]graph [photo]graph [post]script [pre]fix [re]ject [self]ish [semi]private [subger]human [tele]phone [trans]fer [un]kind [under]neath [bl]ast [cr]est [cr]est [dr]ench</pre>

	fr-	[fr]esh		sist	in[sist]
	ql-	[gl]ad		cred	[cred]ible
	pl-	[pl]ease		cur,course	[cur]rent
	pr-	[pr]int		ven.vent	[ven]ture
	sc-	[sc]ar		voc, voke	[voc]al
	scr-	[scr]een		scrib, script	[scrib]ble
	sch-	[sch]ool		cad,cas,cid	[cad]aver
	sl-	[sl]am		duc, duct	e[duc]ate
	sm-	[sm]all		cap,cept,cip,ce	re[cede]
	sn-	[sn]out		ive,ceit	
	sp-	[sp]ell		pon, pos, pound	op[pon]ent
	spl-	[sp]lit		gen	[gen]erate
	spr-	[spr]ing		fac,fic,fect	[fac]tory
	squ-	[sgu]ash	svllabificati	c/c [v] in both	vislta
	st-	[stling	on:	svll.	
	str-	[strling	v/c ;	-	
	SW-	[swling	c/v ;		
	thr_	[thr]ill	v/v		
	+w_	[twlin		c/c [v] then	trom bone
	+r_			[v-e]	
	-ct	falct1		c/c [v] then	dim ple
	-CC _f+	ra[cc]		[cons-le or	
	_1+	ma[]+]		sil-e]	
	-mp			c/c [ĭ]	thank ful
	-nd	ble[nd]		[l.comb.] in	
	-nt	poi[nt]		either syll.	
	-nt	sle[nt]		c/c [ĭ]	dream less
	-pc -sk	a[sk]		[phono.] in	
	-sn			either syll.	
	_st	toa[st]		c/c [phono.] in	fish hook
Latin and	nort	[port lable		either syll.	
Greek roots	pore	[pore]ubre		c/c [1.comb.]	pas ture
01000 10000	ject.jac	pro[ject]or		in either syll.	
	flex.flect	[flex]ible		c/c [v-e] in	high rise
	dic.dict	[dicltation		either syll.	
	pel, puls	re[pel]lent		[v]/c then	ταιστε
	tract	[tract]or		[any pattern]	
	cide.cis	homi[cide]		v/c [phono.] In	ealgre
	vers.vert	con[verslion		erther Syll.	vanlich
	pend.pens.pen	[pend]ulum		nattern	Valitali
	spec, spic	[spec]tator		c/v [phono]	withlout
	fid.fed	[fid]elity		in either syll	"_ cir j ou c
	fer	[fer]rv		c/v [].comb 1	shrinklage
	grad.gress.gre	[grad]uate		in either syll.	Surturlage
	gree	[grad]uuce		v/v [anv	trilumph
	vis.vid.view	[vislion		pattern1 in	or r umpn
	cede.ceed.cess	re[cede		either svll.	
	ceas				1
	mit,mis	ad[mit]			
	tend,tent,ten	ex[tend]			