

# TRANSADDABLE LETTER GROUPS

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Pick a group of  $n$  different letters, and in turn add A, B, ..., Z to these. How many of these enlarged groups can be transposed into words? More interestingly, what is the most fecund such letter group? This is an example of a logological problem best attacked by computer. To illustrate the possibilities, I list below the best letter groups of two through eight letters which can be enlarged to words found in the Official Scrabble Players' Dictionary.

	AT	EST	AERS	EORST	AEINST	AEINRST	AEGINRST
A		seat	areas	orates	entasia	antisera	
B	bat	best	bares	strobe	basinet	banister	breasting
C	act	sect	scare	corset	cineast	canister	recasting
D	tad	teds	reads	sorted	instead	strained	gradients
E	ate	tees	erase	stereo	etesian	trainees	reseating
F	fat	efts	fears	forest	fainest	fainters	
G	tag	gets	gears	ergots	seating	angriest	restaging
H	hat	hest	share	others	sthenia	inearths	ingathers
I	ait	site	raise	sortie	isatine	rainiest	seriating
J	taj	jest	rajes				
K	kat		rakes	stroke	intakes	keratins	streaking
L	alt	lets	laser	ostler	salient	latrines	triangles
M	mat	stem	smear	metros	inmates	minarets	streaming
N	ant	nest	earns	tensor	inanest	entrains	
O	oat	toes	arose	torose	atonies	senorita	orangeist
P	pat	pest	spare	poster	panties	painters	repasting
Q							
R	art	rest	rears	resort	retains	trainers	arresting
S	sat	sets	sears	stores	sestina	stainers	asserting
T	tat	test	rates	otters	satinet	nitrites	restating
U	tau	suet	urase	routes	sinuate	urinates	signature
V	vat	vest	raves	voters	natives		vintagers
W	taw	west	swear	towers	tawnies	tinwares	waterings
X	tax	sext	raxes	oxters	sextain		
Y		stye	years	oyster			estraying
Z		zest	razes	zoster	zaniest		

Most nine-letter words in the OSPD are derivative forms of shorter ones, so this list may not be strictly comparable with the others.

Editor's Note: What are the most fecund letter groups if a large dictionary such as Webster's Second or Third is used instead? As a first approximation, I checked an anagram dictionary based on

Webster's Second and was able to add TAA, YAT and ZAT for a total of 25 three-letter words; KETS (pl of KET) for 25 four-letter words; SENATRIX, SATYRINE and TERZINAS for 23 eight-letter words; and AGRESTIAN and AFTERINGS for 21 nine-letter words. Webster's Third does equally well for three-letter words, adding QAT, ATA and TAY, and duplicates KETS for four-letter words. Thus, for the OSPD the best letter group size appears to be four, but for larger dictionaries the best size may be smaller. Can a letter group generating 26 words be found? The answer appears to be yes, if one is willing to allow a variety of inflected terms and geographical names. In the May 1972 Kickshaws, Mary Hazard, Gary Crum and Murray Pearce all accomplished the feat with letter-groups of size four; for Q, they used QERES (pl. of QERE, a variant of KERE, a Biblical marginal instruction meaning "read") and QADER (apparently a geographical name, not in Webster). However, the best solution to the problem appears to be a combination of Webster's Second and Third, as given above, for words containing AT. Can a letter group generating 26 words in a single dictionary be located?

#### IDIOMS AND PHRASES INDEX

*This three-volume work, subtitled "an unrivaled collection of idioms, phrases, expressions and collocations of two or more words", is the most recent Gale Research Company specialized dictionary edited by Laurence Urdang (Verbatim) and Frank Abate. Its 1691 pages list a staggering 400,000 phrases, conveniently indexed by all significant words regardless of where they occur in the locution; for example, hook-and-ladder company and company Bible are listed on the same page together with about 80 other ones using this word. The phrases are drawn from 28 different general and special idiom dictionaries; the reader must refer to these to learn the meaning of the phrase given in the Index. The set sells for \$150.*

*This reference work has considerable logological potential; for example, I have already extracted material for a quiz identifying states by words associated with them, such as colonel, lottery, oyster, rifle, windage for Kentucky. But it is also a beguiling browse, yielding such goodies as:*

*mommux up, wampus kitty, to have a five-and-three-makes eight walk, queen of Spain has no legs, watermelon under his saddle, to drive the swine through hanks of yarn, pie with the bark on, rain pitchforks with the tines on both ends, your tawts are too far aft, hit the hot bozel, Xaj Skul, nuhn-uhn nuhr, mizake the mizan, colder'n blixens, to look like a death's head on a mopstick, crinkum-crankum whale*