MATCHED TERMINAL DELETIONS

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1. Kickshaws Challenge

In Kickshaws of Feb 2002, Dave Morice asked for words beginning and ending in the same letter, which revealed other words (say, core words) when the terminal letters were discarded. He asked for the longest source words beginning with each letter of the alphabet, in each of four categories: the revealed word reads forwards; reads backwards; reads a different word forwards from backwards (called ‘both’ below, his example was STARS = TAR + RAT); and reads the same backwards and forwards (palindrome).

I added a self-imposed restriction that the source word should have at least six letters. I managed to find examples for almost all the 4 x 26 categories. There were, indeed, so many examples that this article can only contain perhaps 2% of them. Apart from the requested longest examples, selection is personal, based on familiarity. The reverse examples are given more space because they are more difficult to spot. The effect of this method of selection is to give a misleading impression of how many examples were found in each category, so here is a summary:

Counts of initial letters A to Z for F, R, B, P:

| Letter | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| F:    | 757| 5 | 84 | 506| 935| 10 | 216| 122| 39 | 2  | 34 | 108| 110| 177| 70 | 31 | 1  | 441| 5238| 641| 8  | 27 | 2  | 33 | 1  |
| R:    | 258| 4 | 29 | 120| 227| 8  | 67 | 133| 36 | 1  | 49 | 52 | 72 | 81 | 25 | 12 | 0  | 139| 545 | 134| 3  | 3  | 17 | 0  | 14 | 0  |
| B:    | 200| 8 | 35 | 171| 219| 12 | 80 | 103| 23 | 0  | 22 | 57 | 63 | 75 | 20 | 7  | 1  | 98 | 965 | 250| 3  | 15 | 1  | 10 | 0  |
| P:    | 50 | 4 | 8  | 16 | 19 | 1  | 10 | 24 | 12 | 0  | 21 | 13 | 27 | 30 | 18 | 12 | 3  | 22 | 73  | 26 | 10 | 2  | 9  | 5  | 4  | 6  |

Overall, the forward examples account for two-thirds of the total, the ‘both’ examples account for one-sixth, the reverse examples for one-seventh, and the palindromes are easily the rarest at less than one thirtieth.

The words I failed to find were: forwards words beginning with V, reverse words beginning Q, X, or Z, ‘both’ words beginning J, V or Z, and palindromes beginning with J. However, we can fill these gaps (except for Q) by using 5-letter words, thus:

- (all OED except where noted) JUNI = UNI, INU
- VENOV = ENO, ONE
- ZIETZ = IET, TEI

These are all of the type Both, but also may be viewed as providing some solution for Forwards and Reverse. The Palindrome deficiency is made good by: JAQAJ → AQA.

The method of selection obscures which core words which are most popular, so here are the most popular in each category. The most popular core words are all palindromic, led by ELLE and ARRA:

ELLE: CELLEC, DELLED, GELLEG, HELLEH, KELLEK, MELLEM, NELLEN, RELLER, SELLES, TELET, VELLEV, ZELLEZ
ARRA: CARRAC, GARRAG, HARRAH, KARRAK, MARRAM, NARRAN, QARRAQ,
SARRAS, TARRAT, WARRAW, XARRAX. (Naturally, all are in the Palindromicon, except TELLET (eg Roy Tellet OED serviette), and CARRAC (OED stay 1420)

The most popular 'both' core words are OLLA and (necessarily) ALLO
ALLO and OLLA: FALL OF, HALLOH, HOLLAH, ROLLAR, SOLLAS, TALLOT, WALLOW, YALLOY. All are in the OED somewhere, except Y-alloy (Chambers). Sollas is also in the Western Isles.

The most popular forwards or reverse core words are INNE and ITTE, each found six times forwards and twice backwards:
INNE: DINNED, MINNEM, RINNER, SINNES, TINNET, WINNEW, MENNIM, SENNIS
ITTE: DITTED, LITTEL, NITTEN, RITTER, SITTES, TITTET, DETTID, SETTIS (All in OED somewhere except WINNEW, which is in Web 1)

There are plenty of examples fit for party games, as well as logological curiosa: here are a few instances. Forwards and backwards animals are contained in MACULUM, there is a plant containing a hake, and one containing lice. Interestingly, removing Ds from both ends can either result in an antonym (DEDUCATED), or a synonym (DEVERTEBRATED). Does Evandale get vandalised? Do orgies need forgiving? How easily does an hairbrush become a large airplane? How do you link Russian currency with oil? Complete: “it may be lawfull, but it's ?????”. And what would you expect to find in a man-dream?! And what does PEPSI inside lead to? What happens if you burn a rash of bacon? What does a rambler do? Does speculation lead to this? Distinguish between a soldier and a diplomat (hint: sword). What would you do to a tesseract?

All words below can be found in the OED somewhere, except a = ITIS animal, f = ITIS fern, m = ITIS monera, p = ITIS plant, B = Bloomsbury Thesaurus, Ch = Chambers, S = Stedman, TEA = The Electronic Alveary, W1/2/3 = Webster 1/2/3. ITIS is the Integrated Taxonomic Information System, a cooperative database.

FORWARDS + REVERSE (BOTH)

6 AGNATA (f) = GNAT, TANG
9 ARENIFERA (a) = RENIFER (a), REFINER
6 BELAMB = ELAM, MALE
7 CARONIC (W2) = ARONI (a), INORA
7 CENELEC (Ch, acronym) = ENELE, ELENE
6 DEFEND = EFEN, NEFE
7 DRAGGED = RAGGE, EGAR
6 ESTATE = STAT, TATS
8 EMUNGERE (Ch, Latin) = MUNGER, REGNUM
6 FAR-OFF = AROF, FORA
7 GALLING = ALL-IN, NILLA
6 HEARTH = EART, TRAE
7 GALLING = ALL-IN, NILLA
7 GETTING = ETTIN, NITTE
9 GRAVELING = RAVELIN, NILEVAR (= Norethandrolone)
6 HEART = EART, TRAE
7 HEART = EART, TRAE
8 GLEGGING = LEGGIN,
9 GRAVELING = RAVELIN, NILEVAR (= Norethandrolone)
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6 HEART = EART, TRAE
7 HEART = EART, TRAE
8 GLEGGING = LEGGIN,
OPORTO = PORT, TROP (It is a port) 6 OSWAYO (N Pa) = SWAY, YAWS 7 OREGANO = REGAN, NAGER
PAT-COP = ATCO (SW NJ), OCTA 6 PREAMP = REAM, MAER
QALPAQ = ALPA, APLA
RANTER = ANTE, ETNA 7 RAVELER (W2) = AVELE, ELEVA (W Wis)
REMOVER = EMOVE, EVOME 8 REVELLER = EVELLE, ELLEVE
SEMITS = EMIT, TIME 6 SEVENS = EVEN, NEVE 6 SLACKS = LACK, KCAL
SLEETS = LEET, TEEL 6 SLOOPS = LOOP, POOL 6 SPEEDS = PEED, DEEP
STOOLS = TOOL, LOOT 6 STRAPS = TRAP, PART 6 SWARDS = WARD, DRAW
STROLLS = TOOL, LOOT 6 STRAPS = TRAP, PART 6 SWARDS = WARD, DRAW
TABLET = ABLE, ELBA 6 TOMENT (W2) = OMEN, NEMO
TALLEST = ALLES, SELLA
TANNEST = ANNES, SENNA
UINEAU = lNEA , AENI
USTAVU = STAY, VATS
WALLOW = ALLO, OLLA 7 WOLLENW = OLLEN, NELLO
XXXXIX = XXXI, IXXX (all in OED citations)
V-ALLOY (Ch) = ALLO, OLLA
YEVERY = EVERY, REVE
FORWARDS ONLY
AHAKEA (p) → HAKE 6 ALICEA (p) → LICE 6 AMISSA → MISS
ARUNTA → RUNT 6 APEPSIA → PEPSI
APELS → APELS 6 AMISSA → MISS
ARCHONDELLIDA (a) → RHYNCHO BDELLID (literally = snout leech)
BICARB → ICAR 7 BRUNANB → RUNAN
CAMELIAC → AMELIA 8 CODINIAC → ODINIA (a) 10 CORINTHIAC → ORINTHIA
DIGNIFYD → IGNIFY 8 DRIBBLED → RIBBLE 9 DEDUCATED → EDUCATE
DEVOLUTED → EVOLUTE 13 DEVERTEBRA TED → EVERTEBRA TE
EDUCATE → DUCAT 7 ESCAPEE → SCAPE
EVANDALE (also SW Ohio) → VANDAL
13 EVENTILATIONE → VENTILATION
FORGYF → ORGY 7 FORGIAF → ORGIA 8 FORDEALF → ORDEAL
GUNDOG → UNDO 7 GRICING → RICIN 9 GUTTERING → UTTERIN
GLISTERING → LISTERIN 9 ESCALLOPE → SCALLOP
HEIGHTH → EIGHT 8 HAIRBUSH → AIRBUS 10 HALLELUIAH → ALLELUIA
HALLHEARTH → ALL-HEART 11 HYPOCRITISH → YPOCRITIS
HELI (a) → LINE 8 IOCULARI → OCULAR 9 ISKANDERI (a) → SKANDER
JUBARAJ → UBARA
KEPECK → OPEC 6 KOSAK → OSSA 9 KNYCHTL → NYCHTL
LAWFULL → AWFUL 8 LENTICEL → ENTICE 10 LUNIVERSE → UNIVERSE
LEPTOSPIRAL → EPTOSPIRA
MAN-DREAM → ANDREA 9 MAGNETISM → AGNETIS (a)
MATHEMATICAM → ATHEMATICA
NIOWAN → IOWA 6 NOONAN (N Dak) → OONA 6 NUNTON (W. Isles) → UNTO
NICENIAN → ICENIA 12 NIGROMANCIE → IGROMANCIE
OBONGO → BONG 6 OTELLO → TELL 7 OLIVERO → LIVER
OCCOSINGO (Chiapas, S Mex) → COSING
PERSEP → ERSE 7 PRINSEP → RINSE
PLATELAP → LATE-LA (late-La Tène!!)
QUZZAQ → UZZA
RASHER → ASHE 6 ROPIER → OPIE 6 ROUSER → OUSE
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7 RABIDER → ABIDE
8 REVOLVER → EVOLVE
12 RIMBEJi J .ISHER

7 RAMBLER → AMBLE
9 REGRETTER → EGRETTE
12 RAMBLER 7 RAMBLER

8 RELAPSER → ELAPSE
9 RUN-SCORER → UNSCORE (!)
14 REVOLUTIONIZER → EVOLUTIONIZE

11 SLUMBERINGS → LUMBERING
11 SWALLOWINGS → WALLOWING
12 SWORDSMITHS → WORDSMITH

12 SMOULDfERINGS → MOULDERING
12 SHOCK-BOTTLES → HOCK-BOTTLE

12 SWORD-BEARERS → WORD-BEARER
13 SLAVISHNESSES → LA'ISHNESSE

13 SOIL MECHANICS → OIL-MECHANIC
14 SLOCKING-STONES → LOCKING-STONE

16 STABLE-COMPA'NIANS → TABLE-COMPA'NION

8 TEMPTYST → EMPTYS
9 TRAIL-CART → RAILCAR
10 TRAVELLEST (Shakespeare) → RAVELLES
12 TROUGH-CLOSE → ROUGH CLOSE (Staffs)

7 UPAPALU (a) → PAPAL
6 WINDOW → INDO (usu Indo-)
8 XENOPLAX (a) → ENOPLA (W2)
6 YAXLEY (also Cambs) → AXLE

8 YACHTERY → ACHTER (Pulliam)
9 ZUNDERERZ → UNDERER

PALINDROMES (assume all in Palindromicon, except when stated)

6 AMAAMA → MAAM
7 AKAJAKA → KAJAK
8 AMASSAMA → MASSAM
9 ANASASANA → NASASAN

6 BABBAB → ABBA
7 WHARROW → HARRO
8 WRING-JAW → RINGJA

6 CABBAC → ABBA
7 DRAKARD → RAKAR
8 DREPPERD → REPPER

6 DELLED → ELLE
7 EKEEKE → KEEK
6 EPEEPE → PEEP
8 EEGEEEEE → EEEEEEE

6 FINNAG → INNI (OED)
6 GANNAG → ANNA
6 HALLAH → ALLA
8 HRRRRRRH → RRRRRR

6 HALLAH → ALLA
7 IRASSARI → RASSAR
8 KALLAK → ALLA
7 KAYAYAK → AYAYA
6 LEMMEL → EMME
7 LLEWELL → LLEWEL
7 MURORUM (OED, Latin) → URORU
7 MUTATUM → UTATU
8 NOWON → NOO
7 NENONEN → ENONE
6 OONOON → NOO
8 OOROROOR → ORORO

6 PARAPARAP → ARAPARA
7 QARQAAR → ARRA
8 QAZZAQ → AZZA
6 RELLER → ELLE
7 ROTATOR → OTATO
6 SANNAS → ANNA
6 SPOOPS → POOP
7 S-LEVELS → LEVEL
8 SULULUS → ULULU
9 SHALALAH → HALLAH

7 TRADDART → RADAR
8 TRENNERT → RENNER
6 USUUSU → SUUS
7 UAGAGAU → AGAG
6 VELLEV → ELLE
7 VITATIV → ITATI
6 WALLAW → ALLA
7 WOHOWOH (OED) → OHOO
6 XANNAX → ANNA
7 XXXXXXX → XXXXX (both OED)

6 YESSEY → ESSE

6 ZELLEZ → ELLE
7 XXXXXXX → XXXXX (both OED)

6 REVERSE

6 AHSALA ← LASH
6 ASRAMA ← MARS
6 ASSOTA ← TOSS
7 ARANULA ← LUNAR
7 ASSERTA (Pulliam) ← TRESS
9 ALLEMANIA ← INAMELL

6 BEDUMB ← MUSE
6 CYSTIC ← ITSY (TEA)
8 CROCONIC ← INOCOR (= amrinone lactate, TEA)

6 DAMMED ← EMMA
6 DEVOWD ← WOVE
6 EDNIWE ← WIND
6 ENROBE ← BORN
7 EDICULE ← LUCID
7 ENOLASE ← SALON
7 EROSIIVE ← VISOR
8 EDEN-LIKE ← KILNED

6 FARR-OF ← ORRA
6 GANING ← NINA
7 GYNNING ← NINNY
9 GALLETING ← NITELLA

6 HENOC ← CONE
6 HYDITH ← TIDY
10 HOTTENROTH ← TORNETO
6 IGOSI ← SONG
6 ILLUPI ← PULL
6 JACOB ← BOCA
6 KASACK (W) ← CASA
7 KORIACK ← CAIRO

6 LETULL ← LUTE
7 LOVE-ALL ← LAEO
8 LADYGILL (S. Lanark) ← LIGYDA
7 MEGRUM ← URGE
7 MORETUM ← UTERO

6 NAERUN ← UREA
6 NYRWAN ← AWRY
8 NEURODIN (S) ← IDORUE
8 OHTOMO ← MOTH
6 OSSIDO ← DISS
6 PRECIP ← ICER
6 RAMMER ← EMMA
6 XEMMEX → EMME
7 ZOOONOOZ → OONOO

REVERSE ONLY

6 ALLATA ← TALL
6 ASRAOA (= Wallichia, Palmae, monocot) ← OARS
6 ATAOGA ← GOAT
7 ARECINA (p) ← NICER
8 ALL AT SEA ← ESTALL
10 ASTROPORPA (a) ← PROPORTS

6 BETHUMB ← MUHTE
7 CAMMOCC ← COMMA
8 DELIVER'D (Shakespeare) ← REVILE9 DESSIROND ← NORISSE

6 DECARD ← RACE
6 DELIVER'D (Shakespeare) ← REVILE9 DESSIROND ← NORISSE
6 EFFUME ← MUFF
6 ESSOME ← MOSS
7 ELATIVE ← VITAL
7 ENOLATE ← TALON
7 ESURIVE ← VIRUS
9 EFFOLIATE ← TAIL-OFF

6 FASTOLF ← LOTSA
6 GAGGING ← NIGGA
7 GYPPING ← NIPPY
8 HERETOGH ← CONY

6 HLIOTH ← TOIL
8 HERETOGH ← GOTEERE
8 HERETOOTH ← TORNETO

6 ILLABI ← BALL
7 ISRAELI ← LEARS
8 LUFFAE (a)

6 KEDLOK ← OLDE
6 KEDLOK ← OLDE
8 KEDLOK ← OLDE
6 KINNOCK ← CONY

6 LOVELL ← LEVO
7 LYTTLRT ← LETTY
8 LEAFFULL ← LUFFAE (a)
8 LEAFFULL ← LUFFAE (a)
6 LOLSOM ← OSLO
8 MEDULLAM ← ALLUDE
8 NAPERONN ← NOREPA (a)
8 NAPERONN ← NOREPA (a)
8 NAVATION ← OITAVA

6 MOLLSOM ← OSLO
6 MOLLSOM ← OSLO
6 MOLLSOM ← OSLO
6 MOLLSOM ← OSLO
8 MEGACOSM ← SOCAGE
8 MEGACOSM ← SOCAGE

6 MOLLSOM ← OSLO
8 MEGACOSM ← SOCAGE
8 MEGACOSM ← SOCAGE

8 MEGACOSM ← SOCAGE
8 MEGACOSM ← SOCAGE
8 MEGACOSM ← SOCAGE
8 MEGACOSM ← SOCAGE
8 NAPERONN ← NOREPA (a)
8 NAPERONN ← NOREPA (a)
8 NAVATION ← OITAVA
8 NAVATION ← OITAVA

6 OTSEGO (also N Mich) ← GEST
8 ORELIANO ← NAILER
8 PEDIPALP ← LAPIDE
8 PEDIPALP ← LAPIDE

6 OPSAGO (= Withania, Solanaceae, dicot) ← GASP
6 OTSEGO (also N Mich) ← GEST
8 ORELIANO ← NAILER
8 PEDIPALP ← LAPIDE

6 RAMMER ← EMMA
6 REEPER ← EPEE
7 REDIMAR ← AMIDE
7 ROGATOR ← OTAGO 8 REGAGNER ← ENGAGE 8 RESUFFER ← EFFUSE
8 RETRACER ← ECARTE 9 RETINULAR ← ALUNITE
6 SERIFS ← FIRE 6 SPIRTS ← TRIP
7 SLIP-UPS ← PUPIL 8 SEEDNESS ← SENDEE
8 STOLPERS ← REPLIT 9 SENATRESS ← SERTANE
9 STRANGERS ← REGNART

6 TESLET ← ELSE 6 TYRANT ← NARY
7 TYE-LIFT ← FILEY (also N Yorks) 8 TREK-CART ← RACKER
6 ULLUCU (Pulliam) ← CULL 6 UTFARU ← RAFT
6 VAACLAV ← ALCA 7 VAVILOV ← OLIVA
6 WODROW ← ORDO 8 WESSELOW ← OLESSE
6 YEARBY (Cleveland) ← BRAE 7 YAKKITY ← TIKKA

2. Repeated “peels”

It is natural to ask if further peeling of like letters from each end (iteratively) would reveal another core word. In particular, staying with a minimum core of four letters, if we keep removing pairs of letters one at a time from the ends, how many words might be found? Note that we do not insist on finding a new word every time. In fact, about 250 words yielded words for at least two peelings.

Unfortunately, the champion is the word consisting of 43 Zs, which yields further words of 23, 17, 11, 9, and 7 Zs, for five successful peelings (and many unsuccessful ones). More interestingly, I found just one word which had three successful peelings, the square brackets indicating an unsuccessful peel (in general below, they represent non-words):

DEREGISTERED → [EREGISTERE] → REGISTER → EISTE (personal name, OED) → GIST. I call this type FFF, in line with previous terminology, because three strips each reveal a Forward word.

The remaining words only endure two successful strips, so are of types FF, PP etc. A small selection follows. Regardless of any impression given by the selection, types BB and BF are rare. RB, RR and RF are not quite so rare, yet I found ten or fewer examples of each. These directions are always with respect to the original word.

Most of the words I found were of 8 or 9 letters, though some were longer: the latter show a few examples of unsuccessful strips, such as this:

RENCHAINER → ENCHAIEN → [NCHAIN] → CHAI, This is of type FF.

Type BB

REUELLER → EUELLE + ELLEUE. either → UELL + LLEU (W2)
STEWARTS → TEWART + TRAWET. either → EWAR + RAWE

Type BF

ADELAIDA → DELAID + DIALED. DELAID → ELAI
DEVELLED → EVELLE + ELLEVE. EVELLE → VELL. REVELLER has the same sequence

Type RB

RELESSER → ESSEL. [ELESSE] → LESS + SSEL
REPORTER → ETROPE. [EPORE] → PORT + TROP. DEPORTED is similar.
RESILIER → ESILIE. [ESILIE] → SILI + ILIS
SHAMIANAHS → [HAMI]ANAH] → ANAIMA → MIAN + NAIM

Type RR
RENNFEER (a) → EFENNE. [ENNEFE] → FENN
SETIREMES → EMERITE. [ETIREME] → MERIT

Type RF
DELETTED → ETTELE. [ETLETTE] → LETT. RELETTER is similar.
REGAGNER → ENGAGE. [EGAGNE] → GAGN
RESUFFIER → EFFUSE. [ESUFFE] → SUFF
SILLILLS → ILLIGI (a). [IGILLI] → GIILL
STATTITS → TIT-TAT. [TATTIT] → ATTI

Type FR
NO ILLUSION (B) → [OILLUSION] → ILLUSI → SULL
SENTRIRES → ENTIRES → RIT’N
SILLABIS → ILLABI → BALL

Type FB
RELAPSER → ELAPSE → LAPS + SPAL
RESTATER → ESTATE → STAT + TATS
SATROPAS → ATROP + TROP + PORT
SWALLOWS → WALLOW → ALLO + OLLA

Type PP
G WALLAWG → WALLAW → ALLA
KINNIK-KINNIK → [INNIKINNI] → [NNIKKIN] → NIKKIN → IKKI
SEE-SEE-SEES → [ESEESEESEE] → EESEESE → SEES
SHADDAHS → HADDAH → ADDA
SHALALAHs → HALALAH → ALALA
SILLENNES → NELLEN → ELLE. STELLETS also ends ELLE
TATTARRATTA → [TTARRATTA] → TARRAT → ARRA

Type FF
DEBELLED → EBELLE → BELL. REBELLER, SABELLERS also give BELL
DEDUCATED → EDUCATE → DUCAT
DEMTITTED → EMITTE → MITT
DESPENSED → ESPENSE → SPENS
DESPORTED → ESPORTE → SPORT
DIODONTOID → [IODONTOI] → ODONTO (Longman) → DON’T
ETHERATE → THERAT → HERA
LETERNEL → ETERNE → TERN. SATERNAS, SETERNE also give TERN.
MANDREAM → ANDREA → NDRE
REMOTIVER → EMOTIVE → MOTIV
REVERSER → EVERSE → VERS
REVOLUTER → EVOLUTE → VOLUT
STRUMPETS → TRUMPET → RUMPE

It may be possible to derive other words from some of the above sequences by using some of the reverse words as new starting points, to form a tree: however, this would not conform the concept of successive peeling from one root word.
3. Removing multiple letters from each end

For this, the rules are similar to those of the Kickshaws challenge, except that we may remove an identical pair, triplet, etc of letters from each end. In all, these result in about one-sixth of the results obtained from single-letter removal. One major reason is the 4-letter minimum core: removing five letters from each end means we are restricted to 14-letter words and longer. At the shortest length (8 letters minimum), there are plenty of examples, with a lack only of source words beginning F, J, Q, W and X. For the sake of space, we ignore initial letters of the source words (though most initial letters of core words are given in the 2x2 and 2x3 lists). We also ignore the types B/F/R/P because there are many examples below. Many of type B in the lists are presented as type F or R only, because of the obscurity of the other word. The selection of examples is based on familiarity of the core words.

Palindromic examples exist: eg for 2x2 AMMA ↔ TEAMMATE among many; for 2x3 MAKAM ↔ AKAMAKAMAKA; but 2x4 onwards produce simply the all-Z words.

The core words which appear most often are:

**Remove 2x2 letters - most common core words appear 3 times**

ARIS & SIRA: DESIRADE (Guadeloupe, W Indies), HEARISHE, TSARISTS
CHES: ENCHESEN, ISCHESIS (S), SECHESSE
CNES: SECNENES, ENSENCEN, ESENCES
ETAR & RATE: KARATEKIA, LYRAMEE, STRATESTM

Example of a longer core but fewer occurrences: STAND: ANSTANDAN, TO STAND TO

**Remove 2x3 letters - most common core word appear 3 times**

AFTER: DAY AFTER DAY, MAN AFTER MAN, ONE AFTER ONE

**Remove 2x4 letters - most common core words appear 5 and 6 times**

UPON: HARM UPON HARM, LINE-UPON-LINE, LUFF UPON LUFF, PILE UPON PILE, SALT UPON SALT, WHIP-UPON-WHIP

AFTER is similar, appearing in phrases flanked by four letters.
Slightly more subtle is ANDRE: FLOW AND REFLOW, FLUX AND REFLUX, PASS AND REPASS. Other multiple occurrences of core words are similarly of little merit. Removing 2x5 letters or 2x6 letters leads to similarly boring results, and that was the end of the search.

In the following lists, the core words may read backwards or forwards: often they read in both directions, eg DAOR and ROAD, but in this case ROAD is not mentioned because it occurs with that meaning in the source word or phrase. Many more questions present themselves, such as: is there really evil in Leeville, and is it good to live there?


**Remove 2x2 letters** (selection from over 2000)

ABLE ↔ STABLEST
ABLE ↔ ACES ↔ RESECARE
AGGIE ↔ STAGGIEST (OSPD)
ANDRE ↔ STANDEST
ATLAS ↔ RESALTARE
BAUD ↔ RIBAUDRI
BUTT ↔ UNBUTTUN
CENT ↔ RECENTRE
CHAR ↔ ISCHARIS

ACNE ↔ THENCATH
ALLO ↔ CHALLOCH (Dum & Gall)
ANIMES ↔ RESEMINARE
AVON ↔ RENOVAIRE
BAWD ↔ RYBAWDRY
CALL ↔ CALLACCA, also ↔ ESCALCES
CERTA ↔ INCERTAIN (opposites)

ACOL ↔ RELOCARE
ACNE ↔ THENCATH
ACOL ↔ RELOCARE
ALLO ↔ CHALLOCH (Dum & Gall)
ANTI ↔ MEANTIME
BALD ↔ RYBALDRY
BRACE ↔ ONE-CARBON (or 2?)
CAROL ↔ ESCAROLES
CROW ↔ ESCROWES
### Remove 2x3 letters

<table>
<thead>
<tr>
<th>Original</th>
<th>Modified</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARGOT ← PHYTOGRAPHY</td>
<td>ATAN → TARATANTAR</td>
<td>BORDE → REDBORDERED</td>
</tr>
<tr>
<td>CHENI (a) → TESCHENITES</td>
<td>CHOLE → PSYCHOLEPSY</td>
<td>CHONI → CINCHONICIN (Pulliam)</td>
</tr>
<tr>
<td>CINO → DISCINO DIS (a)</td>
<td>COVE → RED-COVERED (Ch)</td>
<td>DALI, ILAD ← DAEDALIDAE (W2)</td>
</tr>
<tr>
<td>DRET ← AMSTERDAMS</td>
<td>DUTT ← INETTUDINE</td>
<td>ERGO → UNDERGOUND</td>
</tr>
<tr>
<td>FFAR ← INGRAFFING</td>
<td>FIAR ← INGRAFING (ingraif)</td>
<td>FORAN ← EYE-FOR-AN-EYE</td>
</tr>
<tr>
<td>GNIT ← POTTING-POT</td>
<td>GREGA → CONREGA CON</td>
<td>JAAJ ← AJAJAJAJAJA (both Pcon)</td>
</tr>
<tr>
<td>ITEM ← KOSMETIKOS (Ch, Greek)</td>
<td>IWER ← THEREWITHE</td>
<td>LOST → ANALOSTANA (a)</td>
</tr>
<tr>
<td>KALA → SHAKALASHA</td>
<td>LAKH → KHALAKKHHA (W2)</td>
<td>MERY ← ENTRYREMENT</td>
</tr>
<tr>
<td>MELBA ← ENТАBLEMENT</td>
<td>MЕRE ← ENTEREMENT</td>
<td>OLINE → GASOLINE GAS</td>
</tr>
<tr>
<td>NICOL ← LES NICOLLES (Guernsey)</td>
<td>NOIS ← SESSIONSES</td>
<td>PICA → SUSPICASUS</td>
</tr>
<tr>
<td>OGRE ← UNDERGOUND (sic, OED worm)</td>
<td>PESTA ← TEMPESTATEM</td>
<td>RAIL → INGRAILING</td>
</tr>
<tr>
<td>OWRE ← UNDERWOUND (W92-242)</td>
<td>PESTA ← TEMPESTATEM</td>
<td>ROCHE → MICROCHEMIC</td>
</tr>
<tr>
<td>PITY ← HOPPITY-HOP</td>
<td>QUEL ← LESQUELLES (OEd, Fr)</td>
<td>SION → SESSIONSES</td>
</tr>
<tr>
<td>RAIN ← INGRAING</td>
<td>RAKA ← SHIRAKASHI (W2)</td>
<td>TURIN → GESTURINGES</td>
</tr>
<tr>
<td>ROSS ← INGRoSING</td>
<td>SHEEP ← RIN-SHEEP-RIN (or run/run)</td>
<td>WEET → ENSWEETENS</td>
</tr>
<tr>
<td>TORY ← NESTORYNES</td>
<td>TROUSE ← RED-TRouserED</td>
<td>YER ← THERE-WYTHE</td>
</tr>
<tr>
<td>VOOR ← INGROOVING (ingroove)</td>
<td>WEDI ← SCHWEDISCH (Ger)</td>
<td></td>
</tr>
<tr>
<td>WHISKE ← RED-WHISKERED (a)</td>
<td>YALP ← ALL-PLAY-ALL</td>
<td></td>
</tr>
</tbody>
</table>

### Remove 2x4 letters

<table>
<thead>
<tr>
<th>Original</th>
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<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAMEL ← GENTLEMAN-AGENT (W2)</td>
<td></td>
<td>AWAK ← ISHIKAWAISHI</td>
</tr>
<tr>
<td>CYTE ← LICKETY-CLICK</td>
<td>DAOR ← RAIL-Road-Rail</td>
<td></td>
</tr>
<tr>
<td>ETTY ← BUMPETTY-BUMP, → YACKETTY-YACK</td>
<td></td>
<td>FOETA ← AMYLATE OF AMYL</td>
</tr>
<tr>
<td>GNIP ← PING-PING-PING</td>
<td>GNIT ← TING-TING-TING</td>
<td>KAWA ← ISHIKAWAISHI</td>
</tr>
<tr>
<td>KOOT ← TOOK-TOOK-TOOK</td>
<td>LIAS ← STAYSAIL-STAY</td>
<td>LINGS ← TICKLING-STICK</td>
</tr>
<tr>
<td>MORF ← HOME-FROM-HOME, ← LIMB FROM LIMB (B), ← LITH FROM LITH</td>
<td></td>
<td>OLE ← MENTO-ELEMENT</td>
</tr>
<tr>
<td>NEET ← NINETEEN-NINE</td>
<td>NOME ← TRIANOMETRIA</td>
<td>REVE ← EVER-EVER-EVER</td>
</tr>
<tr>
<td>PETY ← CLIPPETY-CLIP</td>
<td>REPS ← CENTS-PER-CENT</td>
<td></td>
</tr>
<tr>
<td>SPER ← CENTS-PER-CENT (see REPS)</td>
<td>TEEP ← PEET-PEET-PEET (W80-251)</td>
<td>TOOP ← POOT-POOT-POOT (CSD)</td>
</tr>
<tr>
<td>TRON ← WESTNORTWEST</td>
<td>WELLFIELD (Lancs etc) → FAREWELL FIELDFARE</td>
<td></td>
</tr>
</tbody>
</table>

### Remove 2x5 letters

<table>
<thead>
<tr>
<th>Original</th>
<th>Modified</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALED ← , DELA, →, CREME DE LA CREME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AROF ← FORA, →, TOOTH FOR A TOOTH (B)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATTEN ← DANCE ATTENDANCE</td>
<td>CARE ← COUNTER-ACCOUNT</td>
<td></td>
</tr>
<tr>
<td>EASTBY (N Yorks) ← NORTHEAST-BY-NORTH (also SOUTHEAST-BY-SOUTH)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENOB ← WHALEBONE-WHALE</td>
<td>ESSEL ← SPACELESSE-SPACE</td>
<td>FLAH ← PENNY-HALF-PENNY</td>
</tr>
<tr>
<td>HYDR ← OXIDE-HYDROXIDE</td>
<td>I-NESS ← PATCHINESS PATCH</td>
<td>KRAP ← CROSSPARK CROSS (Devon)</td>
</tr>
<tr>
<td>MODEL ← TWANGLEDOM TWANG</td>
<td>NETTA ← DANCE ATTENDANCE (Ch)</td>
<td></td>
</tr>
<tr>
<td>SEMIT ← THREE-TIMES-THREE</td>
<td>SSEL ← STATELESS STATE</td>
<td>STEEM ← GREEK MEETS GREEK</td>
</tr>
<tr>
<td>TODIS ← AGREE TO DISAGREE (B)</td>
<td>WEST-BY ← NORTHWEST-BY-NORTH (also SOUTHWEST-BY-SOUTH)</td>
<td></td>
</tr>
<tr>
<td>YTRE ← CLICKERTY-CLICK</td>
<td></td>
<td></td>
</tr>
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</table>

### Remove 2x6 letters

<table>
<thead>
<tr>
<th>Original</th>
<th>Modified</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND'T ← HITHER AND THITHER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEGÖ ← OGEN, → FIBRINOGENFIBRIN (S, phrase?)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2x7 has nothing interesting, but 2x8 has EVAH ← PATIENCE! HAVE PATIENCE!

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